



**A STUDY OF HOME ENVIRONMENT, SCHOOL  
ENVIRONMENT AND CERTAIN DEMOGRAPHIC  
VARIABLES AS RELATED TO RESILIENCE  
AMONG ADOLESCENTS**

**ABSTRACT  
THESIS**

**SUBMITTED FOR THE AWARD OF THE DEGREE OF**

**Doctor of Philosophy  
in  
Psychology**

**BY**

**A.A.S. AZAM**

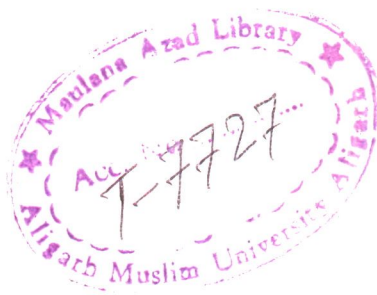
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## **ABSTRACT**

Development of resilience in adolescents has been a matter of primary concern especially in contemporary times when mental health of adolescents has been constantly deteriorating. The situation is no less different in the Indian society where school going adolescents are unable to cope with day-to-day problems and suffering from psychiatric disorders has become a common feature. It therefore becomes the prime responsibility of the social milieu particularly the homes and schools to help them healthily cope with adversity. Innumerable researches in the West have consistently shown that favorable home and school environments are pivotal in determining higher level of resilience in the adolescents (Benard, 1991, 2004; Werner & Smith, 1982). Extensive psychological research has also been conducted on children and adolescents in India but most have focused on the causes and effects of the problems faced by them (Bhargava & Sethi, 2005; Bhat & Srinivisan, 2006; Latha & Reddy, 2006). It is therefore necessary to explore the role of home and school environment as probable protective environments in current Indian scenario in an effort to making these adolescents more resilient to their problems. The present thesis therefore aims to examine the relationship between the two protective environments and resilience among adolescents in the Indian context. Specifically, 3 broad objectives were set for this study: 1) To investigate the relationship, if any, between home environment and resilience among adolescents. 2) To investigate the relationship, if any, between school environment and resilience among adolescents. 3) To investigate the relationship, if any, between demographic variables and resilience among adolescents. 8 schools in City of Aligarh, India were visited out of which permission to collect data was given by the authorities of 4 schools. Resilience scale by Wagnild and Young (1993), Home and School Environment scales (WestEd, 2002) and

Demographic profile were administered to 130 adolescent boys and 130 adolescent girls (Mean Age= 16.61 years; SD=1.04) studying in senior secondary and high school grades. Chi Square, test of independence, 2- way ANOVA , stepwise multiple regression were the statistical treatments used to analyze data obtained from 260 sample participants. Pearson correlations were also computed to explore intercorrelations of the proposed research variables. Chi-square results reveal that resilience did not significantly differ with respect to the demographic variables i.e. gender, family type and socio-economic status of the adolescent participants. ANOVA results reveal that home and school environments had significant main effects well as significant interaction effects on resilience for the total sample. Results of Post hoc analyses conducted are further discussed and explained in the thesis. Step-wise multiple regression analyses reveals school environment to be a stronger predictor of resilience for the total sample. However both home and school environment emerged to be significant predictors of resilience in the adolescents. Separate ANOVA and regression analyses were done for boys and girls. For the two gender groups, both home and school environments had significant main effects on resilience. In the case of boys, home environment was more predictive of resilience while in the case of girls it was the school environment, which was more predictive of resilience. Regression analysis was also done to see which dimension of home and school environment significantly predicted resilience among adolescents. For the total sample as well as for girls, *Meaningful participation* in school was the most dominant predictor while in the case of boys, *Caring relationships* at home best predicted resilience. The home and school environments were positively and significantly correlated with resilience as indicated by the Pearson correlations computed.

In a nutshell, it can be inferred from the present thesis that both home and school environment are positively related with the resilience level of adolescents and play a primary role in its development. From this study it can also be concluded that resilience in adolescents does not necessarily differ with respect to their gender, family type and socio-economic status.



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## *Certificate*

I certify that the thesis entitled ***“A Study of Home Environment, School Environment and certain Demographic Variables as related to Resilience among Adolescents”*** being supplicated by ***Mr. A. A. S. AZAM*** for the award of the degree of Doctor of Philosophy in Psychology of Aligarh Muslim University, Aligarh, is a record of bonafide research work carried out by him on the aforesaid topic. To the best of my knowledge the matter embodied in this thesis has not been submitted to any other institution for the award of any degree or diploma.

I further certify that he has fulfilled all the prescribed conditions of duration and nature given under the statutes and ordinances of Aligarh Muslim University, Aligarh. The thesis has reached the standard fulfilling the requirements of the regulations relating to the degree and can be forwarded to the examiners for its evaluation.

  
(Dr. Tabassum Rashid)  
Supervisor



*Dedicated*  
*to my*  
*Loving Parents*

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# **CHAPTER ONE**

## **INTRODUCTION**

## INTRODUCTION

Development of resilience among children and adolescents has become one of the major concerns for today's society. This is because of the constant deterioration in their psychological health resulting from excessive pressure and additional responsibilities shouldered by them apart from the developmental challenges which this period is often associated with. It is also said that period of adolescence is the period often assumed to be that of storm and stress (Hall, 1904). Erickson (1980) described adolescence as the period of 'identity crisis versus identity diffusion stage'. It is an exciting, but challenging, developmental stage of one's life marked with changes related to physical growth and puberty; changes in self-identity and self-esteem; the search for increased independence; the importance of peer groups; and increased responsibilities and societal expectations. These changes challenge the adolescent to question their previous identity and feelings about themselves. They are extremely apprehensive about defining their new social roles within the family, school and community systems and striving to carve out their path in life (Erickson, 1980).

According to Ebata, Petersen, and Conger, (1990), the transition into adolescence constitutes a challenge of healthily facing all the physiological and psychological changes occurring during this phase before the individual. If these developmental challenges are further accompanied with host of risk factors like academic difficulties (Goertz, Pollack, and Rock, 1996), socio economic disadvantages (Garmezy, 1991; Werner & Smith, 1982, 1992), lack of role models (Garmezy, 1983; Schultz 1991), family dysfunction (Werner, 1992; Werner, Bierman, & French, 1971), poverty and violence (Luthar, 1999; Rutter, 1987), one would not be surprised to find an adolescent with a real challenge trying to balance the risks vs. the protective factors in his or her life.

A study by Moffitt (1993) revealed that more than 80% of adolescents engage in antisocial behavior. For majority of adolescents, such behavior is limited to the adolescent years; for a few (3-5%), it is a lifelong pattern; and for some, it will be a “snare,” a divergence on the path of development that has long-term negative consequences (Rutter, 1989, 1996). But children, it has sometimes been said, are like weeds; they can grow and flourish even in very harsh conditions and environments. This view is supported by studies on children and adolescents who, despite their exposure to truly devastating conditions, develop into competent, confident and healthy adults (Jessor, 1993; Taylor, 1991). In spite of adversity they develop into well-adapted individuals (Luthar & Zigler, 1991). Such persons are described as showing resilience.

Defining resilience is problematic (Kaufman, Cook, Arny, Jones & Pittinsky, 1994) and there is a lack of consensus about the domain covered by the construct of resilience (Gordon & Song, 1994). Discussion around the defining of resilience led to the conclusion that resilience is “the process of, capacity for, or outcome of successful adaptation despite serious challenging or threatening circumstance” (Masten, Best & Garmezy, 1990). Freiberg (1994) explains resilience as the ability to become proactive rather than reactive, and to react flexibly to complex situations (Kaplan, 1999). Resilience is that capability within an individual which assists people to fit in the changing world.

In recent years there has been a notable shift from the problem-focused model of at-risk children, to a proactive model that identifies reasons why children who experience similar challenging circumstances succeed when others do not. For years, researchers had been focusing on what was wrong with children who were failing. In the past few decades’ researchers realized they had been ignoring a question critical to understanding the healthy development of youth. Just like risk factors can be identified with those

children who are failing, so can positive influences or characteristics that leads children to succeed. These positive influences are often referred to as protective factors (Gelman, 1991) or what Rutter (1987) termed as “Protective mechanisms” (Garmezy, 1985, 1994; Gore & Eckenrode, 1994; Rutter, 1987).

Despite the variability with which resilience has been defined and examined, research has consistently identified three domains of protective factors for children’s and youth’s environments: 1) Individual characteristics, 2) Home characteristics, and 3) Community characteristics, like school environment (Yates, Egeland, & Sroufe, 2003). For example, children who demonstrate high levels of abilities, such as intelligence and emotion regulation, typically demonstrate more adaptive outcomes in high-risk contexts than those with lower levels of these abilities. Similarly, nurturing parent-child relationships, high quality schools, and safe neighborhoods are generally associated with positive outcomes (Masten & Reed, 2002).

Home environment is one of the most important influences on psychosocial development of young people (Cairns & Dawes, 1996; Garmezy, 1983). It has both direct and indirect influence on adolescent’s development of resiliency. Many studies on resilience report that the presence of a supportive familial environment consistently buffers the negative impact of risk factors. Family characteristics like lack of physical crowding, consistently enforced rules with fair supervision and well-balanced discipline (Werner & Smith, 1982; Garmezy, 1983), a sound relationship with at least one parent (Smith & Prior, 1995; Garmezy, 1988), parental warmth (Compas, 1988), and cohesion (Garmezy, 1993) indicating adult support and involvement with the child, are useful in the development of autonomy and self-direction that are central to psychological resilience (Benard, 1991).

Schools also have a significant influence on child and adolescent development (Entwisle, 1990). School environment can be an important protective factor and students are more likely to thrive in schools that provide them with responsible roles, clear and high academic standards, resources, and opportunities to participate in a variety of extracurricular activities (Benard, 1991; Henderson & Milstein, 1996; Rutter, 1984; Werner, 1989). Increasingly, schools are being explored for their potential to strengthen the resilience of children and youth (Benson, 2002; Doll & Lyon, 1999; Durlak, 1995; Henderson & Milstein, 2003; Minnard, 2002).

Rutter's (1979) longitudinal study of children and adolescents from the first to the tenth grade in the island of Kauai, Hawaii' highlights the importance and influences of school. They found that students differed in their behavior, attendance, exam success, and delinquency and that these outcomes are systematically and strongly associated with school characteristics. Rutter (1987) suggests the importance of schools as protective factors because not only can they promote self esteem and self efficacy in students by providing opportunities, they also enable them to develop important social and problem solving skills.

Apart from the above mentioned protective environment, demographic factors like gender, socioeconomic status and family size (small and large) have also been shown to have effect on the development of resilience in children and adolescents.

Rutter's (1987) research found that conduct disorders among children and adolescents were strongly associated with severe marital discord, low socio economic status, overcrowding or large family size, parental criminality and maternal psychiatric disorder. More specifically, he found that for the cases that experience two of these risk factors, the rate of conduct disorder increased fourfold.

Today India's population of adolescents ranks amongst the largest in the world. One of the most important commitments a country can make for its future economic, social and political progress and stability is to address the health and development related need of its adolescents (Sharma, Grover & Chaturvedi, 2008). In recent times adolescents in India and the world over have grown into one of the most vulnerable populations. It is estimated that over 100,000 people die by suicide in India every year and it alone contributes to around 10% of suicides in the world and this rate has been found to be increasing and majority of suicides occur in younger age groups ("Suicides in India," n.d.). According to the reports, it is the fourth leading cause of death in the age group of 15 to 18 year olds globally with an increasing number of studies finding it to be the number one cause of death among Indian adolescents (Bhattacharya, 2004). In addition to this, adolescents have higher chances of suffering from mental health disorders (Kessler, Berglund, Demler, Merikangas & Walters, 2005; Patel, Flisher, Hetrick, & McGorry, 2007). Poor mental health also has strong relation to other health and development concerns in adolescents which includes lower educational achievements, substance abuse, violence, and poor reproductive and sexual health (Patel, Flisher, Hetrick, & McGorry, 2007). It is therefore necessary to explore the role of home and school environment as probable protective environments in current Indian scenario in an effort to making these adolescents more resilient to their problems.

Despite growing interest in the study of resilience in India, research in this field has mainly centered on post-disaster studies after some parts of the country experienced natural calamities. Aims of these studies were to explore the reasons as to why some people bounce back faster than others and what can be done to promote resilience in the affected communities (Deb, 2008). Extensive psychological research has also been conducted on children and adolescents in India but most have focused on the causes

and effects of the problems faced by them. Some recent investigations have thrown light on factors ranging from cognitive deficits in the children of alcoholics (Silva, Benegal, Devi, & Mukundan, 2007, as cited in Deb & Arora, 2008) to stressful life events in adolescents (Aggrawal, Prabhu, Anand & Kotwal, 2007, as cited in Deb & Arora, 2008). There have been several other research investigations highlighting the mental health and psychiatric problems of adolescents in India (Bhargava & Sethi, 2005; Bhat & Srinivisan, 2006; Latha & Reddy, 2006). However, there is a need to probe the resiliency processes and the role of protective factors in developing resilience in children and adolescents (Deb & Arora, 2008).

The present study aims to advance our understanding of resilience by investigating multiple protective factors associated with home and school environments and the role of demographic variables among adolescents in the city of Aligarh, India. It is expected that this study will not only help to explore the protective mechanisms in these environments but would also “suggest individuals to be equipped with competencies that heighten the probability of resiliency, if adverse circumstances occur” (Deb & Arora, 2008).

### **1-1 Purpose of the study**

The purpose of this study is to explore the home and school protective factors along with other demographic factors leading to resilience in adolescents.

Following are the three broad objectives of the study:

1. To investigate the relationship, if any, between home environment and resilience among adolescents.
2. To investigate the relationship, if any, between school environment and resilience among adolescents.

3. To investigate the relationship, if any, between certain demographic variables and resilience among adolescents.

### **1-2 Significance of the study**

Positive mental health for adolescents has always been a matter of great concern not only because of the psychobiological turmoil experienced but also due to increasingly new psychosocial challenges they are expected to take during this period. In order to successfully cope with adversity arising from varied internal and external challenges, it is a requirement to help build resilience in today's adolescents. While researchers all over the world particularly in India have excessively thrown light on the deteriorating mental health of adolescents, there are relatively few research studies that directly address the issue of resilience among them.

Resilience in adolescents since long has been understood and researched from the lenses of other psychological perspectives like maladaptive behavior, coping strategies, levels of stress and occurrence of psychiatric disorders, etc. However, there arises the need to examine the construct in context of adolescents in a manner which is more exclusive and direct instead of indirectly enquiring it by way of other psychological constructs. The present study thus, also treats resilience as a construct in itself without resorting to other psychological concepts used so far.

The study of resilience is profoundly positive and hopeful and fits well in the current trend towards wellness models as opposed to disease or medical models in our society, therefore the subject is timely.

Promotion of resilience among people belonging to this phase in adolescents is as much important as in other cultures on grounds of similarities in their inability to cope with varied adversities. However, adolescence resilience is a much under researched issue in India. Hence, this study not only attempts to understand the concept



in context of Indian adolescents but also identifies the protective factors in home and school environment responsible for developing resilience in adolescents of the Indian society.

The present thesis also addresses certain other additional research gaps like prior inconclusive findings regarding gender differences in resilience and limited information on role played by demographic factors in predicting resilience particularly in the Indian context.

### **1-3 Research Questions**

The major research questions to be explored in this study include the following:

Question #1: Is there any relationship between demographic variables and resilience?

Question#1.a: Is there any significant relationship between gender and resilience?

Question#1.b: Is there any significant relationship between socio-economic status and resilience?

Question#1.c: Is there any significant relationship between family type and resilience?

Question# 2: Is there any significant correlation between home environment and resilience?

Question#2.a: Is there any significant correlation between dimensions of home environment and resilience?

Question# 3: Is there any significant correlation between school environment and resilience?

Question# 3.a: Is there any significant correlation between dimensions of school environment and resilience?

Question #4: Is home environment predictive of resilience in adolescents?

Question #5: Is school environment predictive of resilience in adolescent?

Question #6: Which dimensions of home environment are most predictive of resilience in adolescents?

Question #7: Which dimensions of home environment are most predictive of resilience in adolescent boys?

Question #8: Which dimensions of home environment are most predictive of resilience in adolescent girls?

Question #9: Which dimensions of school environment are most predictive of resilience in adolescents?

Question #10: Which dimensions of school environment are most predictive of resilience in adolescent boys?

Question #11: Which dimensions of school environment are most predictive of resilience in adolescent girls?

#### **1-4 Definition of the key terms**

In this study the research variables can be operationally defined in the following manner:

- Resilience- “Personality characteristic that moderates the negative effects of stress and promotes adaptation” (Wagnild & Young, 1993, p. 165).
- Risk factors- Circumstances that increase the likelihood that a youth will develop an emotional or behavioural disorder compared with children from the general population (Garnezy, as cited in Smith & Carlson, 1997).
- Protective Factors- Characteristics, attitudes, or environmental circumstances that assist an individual, family, and/or a community in learning to cope, adapt, and adjust to everyday stressors (Cooper, Estes & Allen, 2004). They are also positive action strategies that build resiliency in youth (Benard, 1991).

- Home Environment: Home environment is defined as an environment where an adolescent member experiences caring relationships with and healthy expectations from the family members and indulges in meaningful participation in family related matters.
- School Environment: is an external protective factor, which in the present research, is defined as an environment, where an adolescent student experiences caring relationships with and healthy expectations from the school faculty and takes meaningful participation in school and class related matters.
- Caring Relationships: “Caring relationships are defined as supportive connections to others in the adolescent’s life who model and support healthy development and well-being’ (WestEd, 2002).
- High Expectations: “High expectation messages are defined as the consistent communication of direct and indirect messages that the student can and will succeed responsibly’ (WestEd, 2002).
- Meaningful Participation: “Meaningful participation is defined as the involvement of the student in relevant, engaging, and interesting activities with opportunities for responsibility and contribution” (WestEd, 2002).
- Adolescents: Persons in the 10 to 19 year age group.

**CHAPTER TWO**

**LITERATURE REVIEW**

## **LITERATURE REVIEW**

The literature review is divided into seven sections. Initially a historical perspective of resiliency is presented, which is followed by a brief overview of the meaning of the term resilience. Third, major theories on resilience are discussed. Fourth, a summary of major research investigations on resilience is provided. Fifth, components of resilience, which includes risk and protective factors in the domains of family, school and community, are discussed. This is followed by a discussion on intrinsic protective factors and the relationship between demographic variables and resilience.

### **2.1 HISTORICAL PERSPECTIVE ON RESILIENCE**

Some of the earliest works on the resilience in psychological literature were theoretical in nature emphasizing on the differences in the nature and development of healthy personality (resilient) in comparison to the unhealthy one (non-resilient) (Maslow, 1950). Thereafter, researches indirectly addressed this concept within the context of chronic stress such as holocaust (Frankl, 1946; Todorov, 1996), poverty (Elder, 1974; Long & Vaillant, 1984) and studies on animals identifying individual differences under various conditions of stress (Anthony, 1987). Researchers made use of both quantitative studies and individual case studies, and this kind of research was based on mostly psychodynamic models of ego function (Anthony, 1987).

After this phase, considerable interest was taken in the development of psychopathology and outcome of children who had parents with mental illness (Anthony, 1987; Glantz & Sloboda, 1999; Luthar & Cicchetti, 2000; Luthar 2006). It was discovered that many children with schizophrenic mothers thrived, despite their high risk status. This discovery led researchers to try and understand the individual differences made in response to adverse conditions (Luthar, Cicchetti & Becker, 2000; Masten, 2001). Studies were conducted researching the impact of various adverse conditions on children and

adolescents, including urban poverty, maltreatment, chronic illness and catastrophic life events (Cicchetti & Garmezy, 1993; Garmezy, 1993; Luthar et al., 2000). These early studies not only identified factors responsible for development of psychopathology but in doing so also identified the qualities of children who were resilient to stress (Luthar et al., 2000).

These findings led to the conclusion that these children, who were better adjusted, despite living in adverse conditions, had special abilities and writers in the field began to refer to these children as invincible or invulnerable to stress or adversities adversity (Anthony, 1987; Luthar, 2006; Masten, 2001). Nature of invincibility or invulnerability to stress was explored and studies were conducted to identify the personal characteristics of these children that made them different. . Additional questions were asked as to whether or not some children had a natural “immunity” to stress and whether it developed gradually as a result of mastering difficulties, or whether the capacity for invulnerability was inherent and a genetic trait. . The question as to whether or not invulnerability was universal or domain specific was also broached, as was the query of invulnerability being a limited resource that could be used up if too many demands were placed upon it (Radke-Yarrow & Sherman, 1990).

In the following years, the notion of invulnerability was challenged as researchers believed it was misleading. Thus the term invulnerability became obsolete and resilience was adopted (Cohler, Stott & Musick, 1995; Luthar et al., 2000; Rutter, 1993).Risk and protective factors remained key terms to describe different variables under examination.

With evolving research in the area of resilience, researchers increasingly acknowledged that resilience may often derive from factors external to the child. Further researches in the field identified three domains of protective factors for children’s and youth’s environments:

- (1) Attributes of the adolescents themselves,
- (2) Home characteristics, and
- (3) Characteristics of their wider social environments (Masten & Garmezy, 1985; Werner & Smith, 1982, 1992).

Risk and vulnerability factors, along with protective factors, remained key terms to describe the different variables under examination and the construct of resilience began to be discussed from a process orientation (Rutter, 1993). Rather than simply studying which child, family, and environmental factors are involved in resilience, researchers are increasingly striving to understand how such factors may contribute to positive outcomes (Cowen et al., 1997; Luthar, 1999). Such attention to underlying mechanisms is viewed as essential for advancing theory and research in the field, as well as for designing appropriate prevention and intervention strategies for individuals facing adversity (Cicchetti & Toth, 1991, 1992; Luthar, 1993; Masten et al., 1990; Rutter, 1990).

Biosocial processes, involving cultural and environmental influences, were recognized as important factors to be considered (Luthar, 2006; Rutter, 1993). Several extensive projects studying the nature of risk and vulnerability in the 1970's and 80's incorporated this, and established resilience as an important construct in the field of child developmental psychology. These studies identified different variables that appeared to be significant protective factors to children including personal resources such as attractiveness and intellectual capability, family resources such as good mothering and supervision, and community resources such as some form of support network (Masten & Coatsworth, 1995). The knowledge gained from these studies formed the basis of several intervention programs aimed at mitigating the effect of adversity on children, and the catalyst for exploring the phenomena widely (Luthar, 2006).

Research in the field of stress and coping was also underway during these years, and the construct of competence and the characteristics of coping were explored in parallel with the construct of resilience (Earls, Beardslee & Garrison, 1987; Murphy, 1987; Moriarty, 1987). Attention has also been directed towards affect regulation as being a key to stability and wellness (Csikszentmihalyi, 1990; Fredrickson, 2001), and this has been substantiated by studies within the field of neuroscience as the development of new research tools have allowed for greater scope and specificity (Davidson, 2000; Fonagy, Gergely, Jurist & Target, 2002; Schore, 2000). In recent years a further shift in the field of positive psychology has led to attention being directed towards the notion of thriving and the potential for growth following times of stress (Carver, 1998).

To study the breadth of situations in which resiliency has been examined, researchers have devised several methodologies. The most common methodology is the retrospective, single sample, or cross sectional study which is used by life events researchers to determine the relationship between negative life events and adaptation. Zirmin (1986) used this methodology to identify resilient attributes in abused children. By contrast, retrospective, cross sectional, multivariate studies tend to include intervening variables and use more sophisticated statistics. An example of this method is Radke-Yarrow and Brown's (1993) study focusing on children living in disordered and stressed households. Another methodology is the short-term, transactional, longitudinal study which is considered more powerful due to the opportunity to assess resiliency over a few months to a few years (e.g. Luthar, Doernberger, & Zigler, 1993). Very long-term studies, such as Werner and Smith's (1982) research, called long-term prospective developmental studies, allow researchers to look at a specific group over many years and conduct numerous follow-up assessments. Finally, prospective, multiple sample studies



are used to developmental researchers and compare the general population to a high-risk population over time (Glantz & Johnson, 1999). Wyman, Cowen, Work, and Kerley (1993) studied resiliency using this methodology in an attempt to show that positive expectations are characteristic of resilient children.

Over time, research in the area of resilience has essentially unfolded in five different directions, including resilience as an aspect of child development and response to adverse conditions, resilience as a theoretical construct of personality, the biological basis to resilience, resilience as a feature of positive coping in response to life stresses, and resilience in terms of enhanced coping following trauma. Each field of research has retained its own unique perspective on the nature of resilience and this has led to each of the five fields developing their own take on the construct of resilience with specific approaches to research and infrequent cross referencing. The result of this divergence is that each field seems disconnected from the others despite a significant convergence in recent years as to what is understood to be integral to the construct. There has been some success in the identification of certain characteristics associated with resilient functioning but this has not led to a sense of confidence with regard to the prediction of who will be resilient when faced with adversity and when resilience might be displayed. This has left the construct of resilience in a precarious position with Some researchers critical of resilience have reached to the point of questioning if resilience should be abandoned as a construct of little worth (Luthar, Cicchetti & Becker, 2000). However resilience is too important a construct to be left alone in present times. The next part of this chapter will try to address in brief the meaning of the construct of resilience.

## **2.2 Resilience: its meaning**

The terms, *resilience* and *resilient* are not new. Resilience is a combination word formed by adding the English *ence* to the Latin *resilientum*. The word first appeared in

the form in Bacon's *Sylva Sylvarum* in 1626 (Barnhard Dictionary of Etymology). According to The Oxford English Dictionary, it possesses two main meanings, incorporating both a human sciences meaning and a physical sciences meaning:

1. (a) The (or an) act of rebounding or springing back: rebound, recoil.  
(b) Revolt, recoil from something (1858, 1890)  
(c) Repugnance, antagonism (1882)

It is interesting that the word recoil with its negative implications was part of the early usage of the term. Common usage of the term in psychological literature today includes the implications of rejecting or drawing away from negative examples, as well as choosing to act in ways that are considered to be healthful or mature.

2. Elasticity; the power of resuming the original shape or position & compression, bending, etc.; specially the energy per unit volume absorbed by a material when it is subjected to strain, or the maximum value of this when the elastic limit is not exceeded.

Resilient was defined as early as 1830 as, "Of persons, their minds, etc.; Rising readily again after being depressed; hence, cheerful, buoyant, exuberant"(Oxford English Dictionary).

The terms *resilient* and *resiliency* have therefore been used to describe an aspect of human capability for nearly 400 years. Resilience till a very long time was not given the status of a psychological concept with a psychological meaning (O'Connell Higgins, 1994). According to Connor and Davidson (2003), "resilience is a multidimensional characteristic that varies with context, time, age, gender, and cultural origin, as well as within an individual subjected to different life circumstances" (p. 76). For that reason, the definitions of resilience differ throughout the literature. Arriving at a clear understanding of what is meant by resilience is difficult due to the complex nature of the term. Some languages do not yet have an equivalent word (Kotliarenko & Duenas,

1993). Spanish, for example, has no word for resilience in psychological literature but, instead uses the term "*la defensa ante la adversidad*" (Grotberg, 1993).

Although various definitions of resilience have been proposed, many are not theoretically founded (Fonagy, Steele, Higgitt, & Target, 1994), and most are linked to a collection of empirical findings, resulting in new definitions. These definitions convey varied aspects of resilience further complicating the interpretation of the construct as a whole (Kaplan, 2005). There is, however, a substantial body of research on the phenomenon of resilience and the literature is replete with definitions, of varying degrees of specificity. Some have construed resilience as a personal trait or attribute, while others have seen it as an ongoing developmental process that reflects positive adjustment in adverse circumstances (Tedeschi & Kilmer, 2005). For example, Brooks (2005) apparently defined resilience both as:

The capacity of a child to deal effectively with stress and pressure, to cope with everyday challenges, to rebound from disappointments, mistakes, trauma, and adversity, to develop clear and realistic goals, to solve problems, to interact comfortably with others, and to treat oneself and others with respect and dignity. (p297)

Brooks (2005) further elaborated resilience as the "ability to meet life's challenges with thoughtfulness, confidence, purpose, responsibility, empathy, and hope" (p. 298).

Process conceptualizations of resilience (Dyer & McGuiness, 1996; Masten, Best & Garmezy, 1990; Rutter, 1987) emphasize qualities possessed by individuals, social resources and coping behaviours, as protective factors which moderate the influence of risk factors to promote adaptation, or higher than normal functioning under adversity. Masten, Best, and Garmezy (cited in Alvord & Grados, 2005), defined it as "the process of, capacity for, or outcome of successful adaptation despite challenging or

threatening circumstances” (p. 426). According to Rutter (1987) resilient individuals possess self-esteem, belief in their own self-efficacy, a repertoire of problem-solving skills and satisfying interpersonal relationships. Dyer and McGuinness (1996) see resilience as a dynamic process influenced by protective factors such as coping resources.

Although there is general argument that resilience constitutes a type of “preparedness” that is mobilized when a stressful situation occurs (Kadner, 1989) there is less agreement about the nature of resilience and the mechanisms that underlie its influence on well being and health. Much of the classic research in this field has used a process perspective and focused on the role of personal, family, and community “protective factors” in moderating the effects of “risks” inherent in poor environments on children’s adaptive outcomes (Beardslee & Podorefsky, 1988; Garmezy, 1991; Moran & Eckenrode, 1992; Radke-Yarrow & Sherman, 1990; Rutter, 1987; Werner & Smith, 1992). This approach places emphasis on identifying the array of protective factors that moderate risks and promote the return to prior functioning (Gore & Eckenrode, 1994; O’Leary, 1998).

On the contrast, a growing body of research focused on resilience in older people, has adopted the position that resilience is a personal strength or capacity that assists individuals in coping with challenges. Within this perspective, emphasis is placed on the constellation of personal beliefs, assets, and skills that assist individuals in managing life challenges so that health and well-being are fostered. The position that resilience is a personal capacity has been supported in several qualitative studies like Brodsky’s (1999) study of 10 resilient, low-income, African American single mothers and Wagnild and Young’s (1990) grounded-theory study of 24 successfully adjusted older women. According to Wagnild and Young (1993) resilience is a personal characteristic thought to enhance adaptation in the context of adversity. Wagnild (2003) argues that resilience is an

innate characteristic each person possesses to some degree and which can be enhanced or diminished depending on life circumstances. Wagnild and Young (1993), in their research, identified two components of resilience, these being personal competence (self reliance, independence, determination, mastery, resourcefulness, perseverance) and acceptance of self and life (adaptability, flexibility, a balanced life perspective).

Demos (1989) introduced the term "patterns of resiliency," by which she means that one's capacity to recover from adversity both waxes and wanes, but that some individuals demonstrate a pattern of consistently being able to recover. Rutter (1990) defined resilience as "the phenomenon of maintaining adaptive functioning in spite of serious risk hazards" (p. 209).

Friborg, Hjemdal, Rosenvinge, & Martinussen (2003) regard resilience as a construct comprising of various dimensions. The concept refers not only to psychological skills, but also to the possibilities for the individual to take advantage of family, social and external support systems in order to cope better with stress. Generally speaking, resilient people are more flexible than vulnerable people are, and they protect themselves against stress by making use of various protective resources. These resources may be internal or external. Various writers classify these protective resources as psychological/internal characteristics, support from family and friends, and external support systems (Friborg et al., 2003).

O'Connell Higgins (1994) provided a definition of resilient persons that contrasts with the term survivor:

Resilience implies that potential subjects are able to negotiate significant challenges to development yet consistently 'snap back' in order to complete the important developmental tasks that confront them as they grow up. Unlike the term survivor, the resilient emphasizes that people do more than merely get

through difficult emotional experiences, hanging on to equilibrium by a thread . . . resilience best captures the active process of self-righting and growth that characterizes some people so essentially. (p. 1)

Cowan, Cowan and Schulz (1996) described resilient individuals as "those who do not simply avoid the most negative outcomes associated with risk, but demonstrate adequate or more than adequate adaptation in the face of adversity" (p. 14).

Challener (1997) introduced some specific and positive characteristics of the resilient child, "For me, a resilient child was one who faced considerable challenges, yet ultimately was able, as an adult, to function as an independent, caring individual " (p. 7).

The concept of resilience explains normal development and the ability to overcome adversity. Three distinct conceptualizations of resilience with positive developmental outcomes in research are reviewed by Masten, Best and Garmezy (1990). The first group of studies defines resilience as the ability to overcome the odds of high-risk circumstances, such as being subject to socio-economical strains, parental psychopathology, and the cumulative effect of multiple risks. These studies show the protective effect of factors such as childhood intelligence, past social, family and school functioning, a warm relationship with other adults, competent parenting, positive school experiences support from other systems, such as a church.

A second group of studies identified by Masten et al. (1990) defines resilience as stress resistance, or sustained competence under threat, for instance the threat produced by the effects of divorce. In these studies protective factors associated with resilience include low levels of inter-parental conflict and living with the same-sex parent in the case of divorce. Likewise, children's resilience in danger and loss is associated with protective factors including caring adults, self-efficacy beliefs, faith and religious beliefs,

intellectual, social and cognitive skills, an internal locus of control and uneasy temperament. These factors may all be moderated by age and gender differences.

A third group of studies defines resilience as recovery from trauma or maltreatment. Findings show that the effect of adverse circumstances may be ameliorated by parental behavior or supporting families in the case of trauma, or a loving foster mother for instance, in the case of maltreatment. Masten et al. (1990) conclude that the development of resilience is non-linear, and may vary in terms of gender, developmental level, and cultural and historical context. General resilience may nonetheless be fostered by facilitating psychological development. Resilience can be fostered by reducing vulnerability, risk and stressors, and by increasing available resources, and mobilizing protective processes such as positive relationships and self-esteem (Masten, 1994).

While all of the definitions seem to clarify resilience, there remains, as the review shows, significant disagreement across the literature. In fact, the definitions provided above are only a few of the numerous ways researchers have defined this construct. The basic core of resiliency, however, appears to be wellness and the ability to bounce back from adversity.

## **2.3 Theories of Resilience**

The following is an overview of the major theories of resiliency and related constructs.

### **2.3.1 Richardson et al. (1990) & Richardson (2002)**

Richardson proposed what he terms as the “metatheory of resilience and resiliency,” which evolved through three different waves of resiliency inquiry. The first identified characteristics of people who effectively cope with and grow through disruptions. The second examined the processes in which people acquire these characteristics. The third was the recognition of innate resilience and our capacity to grow and develop. From this line of research, resilience was conceptualized as, “a force

within everyone that drives them to seek self actualization, altruism, wisdom, and be in harmony with a spiritual source of strength” (Richardson, 2002, p. 313).

A basic assumption of this theory is the idea of a biopsychospiritual balance (homeostasis), which allows us to adapt (body, mind, and spirit) to current life circumstances. Homeostasis is routinely bombarded by stressors, adverse events, and other expected and unexpected life events, or “life prompts.” Our ability to adapt and cope with such life events are influenced by resilient qualities and previous resilient reintegration. The interaction between daily stresses and protective factors determines whether serious disruptions will impact the individual chronically. The interaction between the life prompts and protective factors determines whether disruptions will occur. Life disruption changes the individual’s intact world paradigm. It may result in perceived negative or positive outcomes and a variety of emotional and appraisal responses in the immediate wake of disruption.

The reintegration process leads to one of four outcomes: (1) resilient reintegration, where adaptation leads to a higher level of homeostasis, (2) return to baseline homeostasis, in an effort to move past the disruption, (3) recovery with loss, establishing a lower level of homeostasis, (4) a dysfunctional state, where maladaptive strategies (e.g., self-destructive behaviors) are used to cope with the stressor. Thus, resilience may be viewed as an outcome of successful coping abilities.

### **2.3.2 Epel et al. (1998)**

These theorists focused on physical thriving. Physical thriving results when there is a greater amount of anabolic (e.g., growth promoting) than catabolic (e.g., cortisol) hormones. Characteristics of the stressor (e.g., duration, frequency, and controllability) as well as the psychological moderators such as one’s appraisal of the stressor (i.e., as a threat or a challenge) play a role in determining the profile of



response to stress. When an individual appraises intermittent stressors as controllable, she or he may display a resilient profile of stress hormone responding; that is, rapid cortisol responses with quick recovery, and more importantly, cortisol adaptation when faced with similar stressors over time. This stress response is, in turn, related to better health. Cortisol adaptation to stress may serve as one potential marker of resilient psychological and physical functioning.

### **2.3.3 Garmezy et al. (1984)**

Garmezy and colleagues (1984) conducted the Minnesota Risk Research Project, which investigated intentional and informational-processing dysfunction in children of schizophrenic parents from 1971 to 1982. They found that most of the children did not become maladaptive adults, but grew up to be warm and competent people. Garmezy's "confident" criteria were effectiveness (work, play, and love), high expectancies, positive outlook, self-esteem, internal locus of control, self-discipline, good problem-solving skills, critical thinking skills, and humor. Garmezy's triad of resiliency included personality disposition, a supportive family environment, and an external support system.

From these studies the investigators outlined three complementary models, each involving a particular class of factors to describe the relationship between stress and adaptation. The first is the compensatory model.

A compensatory factor is one that neutralizes exposure to risk. It does not interact with a risk factor, but rather, it has a direct and independent influence on the outcome of interest. Both risk and compensatory factors contribute additively to the prediction of outcome. Compensatory factors may be an active approach to solving life's problems, a tendency to perceive or construct experiences positively, even if those experiences caused pain and suffering, the ability to gain other's positive

attention, and reliance on spirituality to maintain a positive view of a meaningful life. These factors either decrease risk initially or ameliorate risk throughout development.

The second of the models was the challenge model. Here, a risk factor or stressor is treated as a potential enhancer of successful adaptation, provided that it is not excessive. Too little stress is not challenging enough, and very high levels of stress result in dysfunction. Moderate levels of stress provide a challenge that, when overcome, strengthens competence. If a challenge is successfully met, it may help prepare the person for the next difficulty. If efforts are unsuccessful, the individual may become increasingly vulnerable to risk. Resiliency develops not through evasion of risk, but in successfully engaging it.

The third model was the protective factor model. A protective factor interacts with a risk factor to reduce the probability of a negative outcome. It moderates the effect of exposure to risk. Rutter (1987) described a protective mechanism as an interactive process that helps identify “multiplicative interactions or synergistic effects in which one variable potentiates the effect of another” (p. 106). Protective factors include high IQ and better cognitive abilities related to social know-how, better parenting, and higher socioeconomic status. The protective model is different in that it acts indirectly to influence outcome.

#### **2.3.4 Cicchetti and Lynch (1993)**

Drawing on the work of Belsky (1980), Bronfenbrenner (1977), and Cicchetti and Rizley (1981), Cicchetti and Lynch conceptualized ecological contexts as consisting of a number of nested levels with varying degrees of proximity to the individual. These levels transact with each other over time to shape the individuals development and ability to adapt to their environment. The macro system includes cultural beliefs and values that permeate societal and family functioning. The

ecosystem consists of the neighborhood and community settings in which families and children live. The micro system incorporates the family environment that children and adults create and experience. Finally, the level of ontogenic development includes the individual and his or her own developmental adaptation. This final level reflects the belief that individuals are important agents of their own environments. Cicchetti and Lynch (1993) have hypothesized that these levels of the environment interact and transact with each other over time in shaping individual development and adaptation. In this model, context and children's functioning are conceptualized as mutually influencing each other. Transactions between children and their contexts both allow for continuity in children's development (and context) over time and create potentialities for change.

#### **2.3.5 O'Leary & Ickovics (1995)**

The foundation of the concept put forth by O'Leary and Ickovics comes from the literature on resiliency, but goes beyond the view of resilience as homeostasis. It suggests a value-added construct where challenge provides an opportunity for change and growth. According to these theorists, when an individual is confronted with a challenge they may succumb or respond in one of three ways – survive, recover, or thrive.

Survival implies that the individual affected by a stressor continues to function, but in an impaired fashion. For example, a victim of a violent crime, for whom the trauma of the event has instilled overwhelming fear, is afraid to leave home and therefore is unable to return to work and other daily activities. For this individual recovery was not possible because the psychological consequence of the event are so debilitating.

Recovery indicates a return to baseline. After the decrement associated with an initial challenge, the individual is able to return to previous levels of social, psychological, and occupational functioning. The victim of violent crime who returns to work and other daily activities in much the same way as prior to the event would be an example of recovery according to O'Leary and Ickovicks.

Thriving involves the ability to bypass the original level of psychological functioning, to grow and to flourish. Through the interactive process of confronting and coping with challenge, a transformation occurs. The individual does not merely return to a previous state, but moves beyond it, adding value to life. Thriving may be behavioral, cognitive, and emotional. It is transformative, contingent on a fundamental cognitive shift in response to a challenge. Challenge provides the opportunity for change because it forces the individual to confront personal priorities and to re-examine their sense of self. It can also alter social roles, resulting in the acquisition of a new role, loss of an old role, or a reordering of role priorities.

Within this context, the authors suggest that there are different determinants to thriving, including individual and social resources. Individual resources include, but are not limited to, hardiness, active coping, a sense of coherence, optimism, and ability to find meaning in challenge. Social resources include formal (e.g., organizational or institutional) or informal (e.g., friends, family, co-workers) resources.

#### **2.3.6 Kobasa (1979, 1982), Maddi & Kobasa (1984)**

One of the first, and, possibly most controversial, concepts within the resiliency literature is that of hardiness. Kobasa and colleagues were the first to introduce this construct and conceptualized it as a personal/individual difference variable that protects one against harmful effects of stress. According to theory, hardiness is a general quality that emerges from rich, varied, and rewarding childhood experiences. Hardiness was

conceptualized as comprising three interrelated dispositional tendencies: control, commitment, and challenge. A hardy person views potentially stressful situations as meaningful and interesting (commitment), sees stressors as changeable (control), and sees change as a normal aspect of life rather than a threat, and views change as an opportunity for growth (challenge). As a result, a hardy person is able to remain healthy under stress. Hardy people are thought to “transform the meaning of events to their most positive interpretations and ones that lead to goal directed behavior” (Orr & Westman, 1990, p. 143).

### **2.3.7 Rutter (1985, 1987, 1990)**

Rutter (1987) made an important distinction between resiliency as a process or mechanism, versus a factor, trait, or variable: “The terms ‘process’ and ‘mechanism’ are preferable to ‘variable’ or ‘factor’, because any one variable may act as a risk factor in one situation but as a vulnerability factor in another” (p. 317).

In this context, Rutter discusses the concept of mechanisms that protect people against the psychological risks associated with adversity in relation to four main processes.

The first of these mechanisms is the reduction of risk impact. The impact may be reduced by altering the appraisal of the risk factor. The second way in which risk impact may be mitigated is through mechanisms that change the child’s exposure to the risk situation. The third mechanism through which protective functions may be served is through the establishment and maintenance of self-esteem and self-efficacy. Finally, protective factors operate through opportunities to obtain experiences that might mitigate the effect of early risk factors.

In this regard, Rutter (1990) defined three broad variables as protective factors: (1) personality coherence, (2) family cohesion, and (3) social support. Personality factors include level of autonomy, self-esteem and self-efficacy, good temperament,

and positive social outlook. In addition, having more flexible thinking and expanded behavioral options as a result of positive affect may increase the personal resources of extraverted individuals during times of adversity. Furthermore, the tendency of extraverted individuals to build strong networks of social support may allow them access to this important protective factor during stressful situations (Rutter, 1985).

## **2.4 Summary of research investigations on resilience**

In the early days of resilience research several longitudinal studies examining risk and vulnerability shed light on important protective factors for children growing up in adverse situations (Masten and Coatsworth, 1995). Many of these studies did not directly examine resilience per se but focused on factors relating to children's development in adverse conditions that might be predictive of future difficulties such as mental health problems or criminal behavior. These studies generated interest in the protective factors identified and in the accrued evidence suggested that adversity in childhood did not necessarily lead to negative outcomes. As previously mentioned, questions arose in response to these studies as to what exactly made these children seem invincible to the disadvantageous conditions during their childhood (Anthony, 1987).

Werner and Smith (1977) conducted an important study in this tradition. The focus of this longitudinal study was on a *high-risk group* of children born in 1955 in Kauai, Hawai'i. One third of this cohort ( $n = 201$ ) was designated as *high-risk*, because they were born into poverty and lived in a family environment troubled by a number of factors including biological and prenatal stress, family instability and discord, parental psychopathology, or other poor child-rearing conditions. One third of these *high-risk children* ( $n = 72$ ) grew up to be competent, confident, and caring adults. Several differences were found when these children were contrasted with the at-risk children

who did develop serious problems. The study's findings revealed three types of protective attributes that supported resilience:

- Dispositional attributes of the individual,
- Affectional ties with the family
- External support systems in the environment.

This study further revealed that less occurrence of illnesses, being affectionate and socially responsive, having good self help skills along with good sensori-motor acquisition and language development were the characteristics of resilient children at risk during early childhood. During the phase of adolescence, the same resilient children showed good problem-solving skills, communication skills, and perceptual motor development. In later adolescence period, resilient individuals possessed high internal locus of control, an achievement-oriented attitude, and positive self-esteem. These resilient individuals later turned out to be adults who were able to relate to numerous sources of support within their environment (Werner & Smith, 1977).

Werner and Smith (1992) also found some interesting gender differences in a follow-up study where their sample was 31-32 years old. They found scholastic competence at age 10 was, for example, more strongly associated with successful transition into adult responsibilities for men than for women. On the other hand, factors such as high self-esteem, efficacy, and sense of personal control at age 18 were more predictive of successful adaptation with adulthood among the women than men. Similarly, the effects of different stressors in the youths' lives influenced their development into adulthood. Werner and Smith (1992) found that males were more vulnerable to separation from or loss of caregivers in the first decade of life (early to middle childhood) than girls, but in the second decade (i.e. adolescence) girls were more vulnerable to chronic family discord and disturbed interpersonal relationships

than boys. They also found that more positive changes occurred among the women who had mental health problems as adolescents than among the men. These results provide compelling evidence that although many factors may help *at-risk* children overall to be resilient in the face of adversity, the resiliency process may differ for men and women.

Findings from an epidemiological study by Rutter in 1979 on the Isle of Wight and inner city London were similar to those obtained by Werner and Smith. This study examined cumulative risk for psychiatric disorder and criminality, and it found that risk variables did not always lead to psychiatric disorder if they occurred in isolation (Rutter, 1991). What the study did find was that the risk was increased if two or more risk variables were present at the same time, and that if the child's circumstances changed then so did the risk (Rutter, 1991). As a result of this study Rutter began to stress the importance of process when studying risk and vulnerability, and also acknowledged the significance of key turning points in an individual's life (Rutter, 1991). Among the resilient characteristics identified in children by Rutter were easy temperament, being female, good parent-child relationships, marital support, a positive school climate, self esteem and self efficacy in at least one domain of life, planning skills and a warm, close personal relationship with an adult (Richardson, 2002; Rutter, 1993).

Garmezy et al, when investigating the impact of parental schizophrenia in the 1980s, found that most offspring remained well and identified a number of significant factors including effectiveness in work, play and relationships, self discipline, good problem solving skills, critical thinking skills and humor. Garmezy identified a triad of resilient factors that included personality disposition, a supportive family environment and an external support system (Richardson, 2002). A second 1980s study, the Newcastle Thousand Family Study, examining adversity and later criminality,



identified factors associated with good outcomes like good mothering, good maternal health, an employed breadwinner, good health and physical development of the child long with being the eldest in the family. During school years additional factors were identified and included intellectual functioning, school achievement, good parental supervision and belonging to prosocial youth groups (Kolvin, Miller, Fleeting & Kolving, 1988, as cited in Masten & Coatsworth, 1995; Masten 2001).

The Rochester Longitudinal Study of the 1980s studied vulnerability to later mental health problems and the cumulative risk of children born to mothers suffering from schizophrenia. This study analyzed risk in relation to intellectual and socio-emotional functioning at age four, and found a linear relationship in terms of increased risk leading to intellectual and socio-emotional functioning deterioration. They noted that the impact of maternal mental illness did not appear to be related to any particular type of mental illness, and that there was a striking similarity between the impacts of maternal mental illness and that of poverty on the well being of children (Sameroff & Seifer, 1987). Subsequent follow up studies of these children as adolescents were made and several variables were identified relating to improved functioning, including fewer stressful life events, less depression in mothers, mothers expressing greater concern for their children and less dissatisfaction and criticism experienced by the mothers about the children (Seifer, Sameroff, Baldwin & Baldwin, 1992, as cited in Masten & Coatsworth, 1993).

A study by Moran and Eckenrode (1992) attempted to address individual differences in coping with maltreatment. Two personality characteristics were examined and these included locus of control and self esteem. The study explored what protective qualities these characteristics might have with regard to depression for girls (12-18 years) following maltreatment. The results suggested that high self esteem and

internal locus of control for good events were protective factors, and that these characteristics were less evident if the child had been exposed to maltreatment at an earlier age. The type of maltreatment was not significant, and explanations relating to family relationships and dysfunction or the cumulative impact of maltreatment were suggested as potential reasons for the results. The authors suggested that maltreatment during preadolescence may interfere with the development of these characteristics as they are dependent upon the quality of the parent child relationship. Unfortunately, although this study identified some interesting factors with regard to self esteem and locus of control, the design of the research did not yield further insights.

Adding to the evidence on resilient functioning were the results of a longitudinal 18 year study involving high risk children and their families by Egeland, Carlson and Sroufe (1993). This study had a transactional basis that placed emphasis on “identifying and examining meaningful patterns of behavior rather than specific outcomes” (Egeland et al., 1993, p 519). It involved gathering multiple measures from multiple sources over time and identified poverty as a significant risk factor, highlighting that the negative effects of poverty were cumulative over time. With regard to children who were able to improve their level of adaptive functioning, the quality of the relationship that infants and toddlers had with their mothers was believed to be highly important and augmented by increased support / decreased stress in the family environment. Competent functioning in early childhood was found to be related to higher intellectual and language ability, a structured and responsive home environment, and a positive mother-child relationship. For girls, competence was enhanced by the mother’s personal adjustment, and the role model of positive coping was inferred (Pianta, Egeland & Sroufe 1990, as cited in Egeland et al., 1993). The predominant finding of the study pointed to the importance of the attachment

relationship, and that positive adaptation during childhood was mediated by the quality of the mother-child relationship.

Studies following on from this initial wave of resilience research began to be more focused on addressing specific psychological aspects of resilience (Richardson, 2002). Luthar (1991) conducted a study to investigate the variables that may promote resilience among a group of 144 high-risk adolescents. The participants included 62 male and 82 female ninth-grade students, 77% were racial/ethnic minorities (45% Black, 30% Hispanic), and most of the participants were from low socioeconomic status (SES) families. Resilient children were identified as those who experienced high stress and high competence. Luthar's findings showed that an internal locus of control or participants' belief which were in control of their environment, and social expressiveness or their popularity with peers, were factors that protected youth against stress. Luthar's findings on internal locus of control and social expressiveness may be indicative of ways of coping with stress and importance of peer support, respectively.

Vaillant (1993), using the Core City sample of disadvantaged males in the study of Adult Development for his research on disadvantage, resiliency, and mature ego defenses, selected as subjects the 11 of the 456 disadvantaged persons who had the worst childhood environments: both multiple risk factors and a lack of most of the protective factors thought to promote resiliency in childhood. In a follow-up with these eleven subjects when they were about age 50, Vaillant found that 8 manifested the quality of resiliency. The subjects of all these longitudinal studies were deemed to be disadvantaged for a variety of reasons, but low family income was almost always a factor (Gore & Eckenrode, 1994), along with poor housing and large or single-parent families. This is especially interesting because "there is evidence that greater affluence and improved living conditions have been accompanied by an increase in some forms

of psychopathology or psychosocial disorder" (Rutter, 1990, p.363), whereas sometimes poverty serves to foster resiliency (Elder, 1995; Long & Vaillant, cited in Garmezy, 1992).

Research studies in the later 1990s built on the insights gained from these earlier studies with further longitudinal studies continuing to report different variables associated with resilient functioning of children and youths in high risk situations. The analysis of longitudinal data from a New Zealand study of children and adolescents illustrates this. This study found that resilient youths (identified by absence of externalizing behaviors) were distinguished from their less resilient cohorts through less exposure to family adversity, superior intellectual functioning, less contact with delinquent peers and less novelty seeking behavior. However, it also found evidence suggesting that females were no more resilient than males and that when IQ, peer affiliation and novelty seeking were allowed for, that children presenting as more adaptive at an earlier age, were no more resilient than others at a later age. However certain inconclusive results like external activities and relationships not appearing to be protective and parental bonding and attachment as not related to resilience have also been obtained (Ferguson & Lynskey, 1996). With regard to this study it is important to note that it was not designed to study resilience per se, and that it used available data from a more extensive study to draw its conclusions.

Masten, Hubbard, Gest, Tellegen, Garmezy and Ramirez (1999) found anomalies with regard to prior research in terms of the need to incorporate indicators of psychological distress into appraisals of resilience. Masten et al. (1999) report on a 10 year longitudinal study focusing on the differences between resilient youth and their maladaptive peers, and competent peers who had not experienced adversity. This study reported that the group of resilient youths and their competent peers were alike in terms

of the psychosocial resources (intellectual ability and parenting resources). They found that resilient youth had much in common with their competent peers, and that although they reported experiencing negative affect this was not at a level beyond the norms of the measurements used. The group of maladaptive youth, however, was reported as more at risk of psychological distress and reportedly responded to stressors with distress and negative emotion. This report concluded that the development of competence is related to psychosocial resources, and that good resources are less available to children growing up within the context of adversity, but that if these resources are available then competence is likely to be evident (Masten et al., 1999; Masten & Reed, 2002).

Further inconsistencies were found in the results of a large epidemiological study by McGloin and Widom (2001). They operationalised the construct of resilience across eight domains of functioning to include employment, homelessness, education, social activity, psychiatric disorder, substance abuse and criminal activity in terms of official arrest and self reported violence. The study involved over a thousand subjects that had been victimized as children (as identified by official records) and a control group. Subjects were interviewed at a later stage in life during early – mid adulthood (18-41 years). This study found that 22% of the maltreated group met the criteria for resilience, with more females meeting the criteria for resilience and being successful across a greater number of domains than males. Analysis of the type of abuse experienced, and removing the two criminality domains, did not yield any significant explanations with regard to gender differences and the authors suggest that the results of the study may reflect that males are generally more vulnerable than females as evidenced by general mortality and morbidity rates. The analysis of type of abuse and

domain success found that while sexual abuse and neglect were significant negative predictors of resilience, physical abuse was not of them.

Masten, Burt, Roisman, Obradovic, Long and Tellegen (2004) reviewed a number of longitudinal studies that followed disadvantaged individuals into adulthood. They reported evidence suggesting the period of life named “emerging adulthood” by Arnett (2000) may provide a window of opportunity for positive change. This group presented findings from a longitudinal study exploring continuity and change through this transitional period, and questioned if positive change for maladapted individuals is predictable. Reassessment of subjects that had been involved in a previous study found that competence was enduring for both resilient and competent individuals. Resources in childhood and adolescence believed to be important for on-going success included intellectual functioning, parenting quality and socioeconomic advantages. Adaptive resources identified as important included the ability to plan and having motivation to succeed in the future, behavioral and emotional autonomy, the capacity to handle stressful situations and access to supportive adults. A small number of maladapted subjects (one third, all females) did make significant improvement during the transition into adulthood, but the authors did not offer an explanation as to why this positive change had come about.

A study by Cicchetti and Rogosh (1997) involving children in their middle childhood years over a three year period attempted to identify the processes underlying successful adaptation despite adversity, and to identify any differences between maltreated children and a control group of non maltreated children with regard to self striving and adaptation. This study involved multiple measurements on an annual basis and included self report, peer ratings, counselor ratings, and school measurements that were combined to form an adaptive functioning indicator; and to provide several

measurements reflecting proposed process variables relating to ego resiliency, intelligence, self esteem, maternal relationship and relationship with counselor. This study confirmed that maltreated children displayed less adaptive functioning, and that fewer of the maltreated children were considered resilient in their functioning. Factors identified as significant in resilient functioning involved relationship factors for the control group; and ego resilience, ego over control and positive self esteem for the maltreated group. The authors concluded that for the children in the maltreated group self system processes (self reliance and confidence) and interpersonal relationships were important for resilience outcomes, and that children play an active role in constructing their ultimate adaptation.

A later study by Buckner et al. (2003) adds to these conclusions in relation to self regulatory skills and resilience. Their study differentiated resilient from non-resilient school age children (8-17 years), and looked for significant characteristics between the two groups. The factors that were explored included child centered resources (cognitive abilities, self esteem and self regulation in terms of executive function and emotional regulation capacities) and family / environment centered resources (social support and parental monitoring). Results found that children living in poverty are subjected to circumstances that are detrimental to their well-being but that 29% of their subject group did manifest resilience. The children who were classified as non-resilient were found to have been exposed to significantly more adverse life events than their resilient peers. Self regulation skills were identified as a predictor of resilience, and no age or gender differences were found. In addition to this, parental monitoring was also found to be an independent predictor of resilience, and there was no association between social support and resilience. Buckner et al. (2003) also proposed that self regulation skills may reflect temperamental characteristics, and that

although they suggested that this may have a genetic basis with links to the prefrontal cortex, they cautioned against the inference that self regulation is a static trait. These studies and current literature of resilience focus on two central concepts:

1. Risk factors, and
2. Protective factors.

## **2.5 Risk factors**

The concept of risk originated in epidemiological research and was later adopted by social scientists to study social behavior (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). A risk factor has been defined as "any influence that increases the probability of onset, digression to a more serious state, or maintenance of a problem condition" (Kirby & Fraser, 1997, p. 11). It is not an easy matter to differentiate between a risk factor and a stressor. Stress results when individuals interpret an event and decide there are insufficient supports, coping strategies and resources that they can draw upon (Gadzella, 1994; Rice, Herman & Peterson, 1993). Frustrations, conflicts, and pressures can be considered stressors. More specific examples can include: delays in reaching a goal, failure, being socially isolated, parents'/siblings' injury or health problems, conflictual relationships, getting arrested, unplanned pregnancy, and developing a mental disorder (Gore & Aseltine, 1995; Kirby & Fraser, 1997). Smith and Carlson (1997) have suggested that stress takes into account the meaning or perception of the experience. A stressor that might be a crisis to one person may be seen as a challenge and managed by another. Their summary provides clarity on this subject:

Both stressors and risk factors have the potential to threaten child and adolescent well-being. Whereas stress, depending on how it is perceived and handled, may or may not lead to negative outcomes. Risk factors increase the odds of poor outcomes. Most risk factors can be considered stressors, for example, ethnic minority status, poverty,



parental discord, parental criminality or mental illness, or out-of-home placement but the reverse is not necessarily true. Some stressors may not be considered risk factors, in particular daily hassles and normal transitions. Moreover, some stressful events are ambiguous or even positive in terms of their meaning to the individual, whereas risk factors are always considered negative. (p. 235)

Another concept similar to risk factors and stressors is that of deficits. Benson (1993), as part of the Search Institute's profile of public school students-has suggested that deficits, including abuse, parental addiction, negative peer pressure, television over exposure, and social isolation can "interfere with healthy development, limiting access to external assets...or easing the way into risky behavioral choices." "Deficits are liabilities, none of which necessarily does permanent harm, but each of which makes harm more possible" (p. 19).

It is evident that stress, risks and deficits are present in a variety of domains. Risk factors can include "characteristics of individuals and families, social contexts, or the interactions between persons and their environment" (Smith & Carlson. 1997, p. 234). Following is a brief review of such risk factors.

### **2.5.1 Individual risk factors**

Individual risk factors or traits may include biological and genetic attributes during the prenatal term; birth complications; individual characteristics such as low IQ or difficult temperament; presence of a specific disorder such as attention-deficit disorder; chronic illness; and accidents (Hauser, et al., 1989; Colten & Gore, 1991; Garmezy, 1983; Smokowski, 1998). All such risk factors or traits may function as markers for subsequent problems or disorders (Kirby & Fraser, 1997).

It has been widely cited that temperamental difficulty is a risk factor for children and adolescents (Tubman & Windle, 1995). Rutter (1983) suggested that

children with difficult temperaments are more likely than other children to be the target of parental hostility, criticism, and irritability.

Another individual characteristic that is similar to temperament is a pessimistic or world view. Seligman's (1995) research indicated that children with a pessimistic perspective were at greater risk for doing poorly in school, experiencing problems with depression and anxiety, and being at risk for worse physical health than are optimistic children. Additionally, it seems that once a pessimistic child experiences depression, the child is at greater risk of becoming depressed in his or her adolescence.

Gender may be a factor in appraising, interpreting, and managing stress and risk situations. In a study conducted on undergraduate students, Gadzella (1994) found that females reported experiencing significantly more stressors and negative reactions (including physiological, emotional, and behavioral reactions) to stressors than their male counterparts. Additionally, Werner and Smith (1982) reported that adolescent girls are at higher risk for some mental health disorders.

Individual characteristics such as difficult temperament, pessimistic world view, and low self-esteem may all play a role in increasing the individual's risk of poor outcomes. Fraser (1997) has introduced the idea that certain risk factors are associated with certain outcomes: ". . .different individual, family, school, neighborhood, and contextual conditions produce different kinds of problems" (p. 3). For example, individual risk factors such as poor impulse control, attention deficit, sensation-seeking orientation, external locus of control, and a sense of meaninglessness have been associated with alcohol and drug use (Jenson, 1997; Newcomb & Harlow, 1986). Newcomb and Harlow (1986) have suggested that, "by adolescence a pattern may have developed whereby many teenagers seek solace from alcohol, marijuana, and other drugs in order to relieve a sense of meaninglessness and lack of direction in their life" (p. 574).

### **2.5.2 Family risk factors**

There are many different family risk factors that affect children. These include parental problems (parental substance abuse, mental illness, or criminality), lack of structure and poor communication in the family, unattended parent child relationship, and the occurrence of abuse. Berlin and Davis (1989) have pointed out that parental alcoholism can affect children throughout their development. They conclude that children being aged six or younger at the onset of parental alcoholism, being an only child, or being the oldest child increase the likelihood of poor emotional and behavioral outcomes.

During middle school, children of alcoholic parents can be at risk for poor school performance, fewer peer relations, difficulty in mood control, and lowered self esteem. During adolescence, maladaptive outcomes may include problems with impulse control, running away, depression, suicidal behavior, and drug and alcohol abuse. It is evident that marital conflict and family discord can also have substantial negative impact on children. In an study, Conger and colleagues found a strong link between marital conflict and adolescents' alcohol use (Conger, Lorenz, Elder, Melby, Simons & Conger, 1991).

Children may be at risk of developing a mental illness or substance abuse in part due to genetic transmission, but there is even more risk when combined with such factors as poor parenting skills (poor communication, ineffective problem-solving strategies and few monitoring skills) (Kirby & Fraser, 1997) and a stressful parent-child relationship. Ray-Grant and colleagues (1989) found that poor interactions between the youth and their mothers were significantly related to the occurrence of disorders. In a study on suicidal inpatient youth and control group, both group members were asked what according to them the “most stressful event” was. As per the study’s findings

most of the patients considered relationship problems with their parents, whereas a control group reported relationship problems with peers as the most stressful event (Wilson, Stelzer, Bergman, Kral. Inayatullah, & Elliot, 1995).

Other major risk factors include delinquency (Sullivan & Wilson, 1995), loss of and separation with near and dear ones (Rutter, 1972), abusive parenting (Thomlison, 1997), pregnancy (Franklin, Corcoran, & Ayers-Lopez, 1997) etc.

### **2.5.3 Community risk factors**

Broad social, cultural and environmental factors such as joblessness poverty, discrimination, homelessness, social isolation and violent, dangerous, or disorganized neighborhoods have been associated with adverse child and family outcomes (Dryfoos, 1990; Smokowski, 1998; Williams et al., 1997). These factors have both direct and indirect effects on the overall risk to a child. "For example, poverty directly affects children by lowering the quality of their food and shelter. It has indirect effects on children by placing parents under such constant strain that they find it difficult to respond consistently to a child's needs" (Kirby & Fraser, 1997, p. 11).

Much like there are common family risk factors for substance use and delinquency, there are also common community risk factors for these problems. These include the availability of community resources, level of community organization, community values, norms and attitudes, level of devaluation of the neighborhood, and general living conditions (Jenson, 1997; Sullivan & Wilson, 1995; Williams et al., 1997).

Additionally, if there are fewer opportunities for higher education and employment, the youth lacks confidence of success in future, which can result in frustration and anger and ultimately, alienation, substance abuse, school failure, and delinquency (Kirby & Fraser, 1997).

Research conducted by Hendryx and Ahern (1997) found that psychiatric disorders were associated with poor health habits and lower income. In their summary they concluded that, "psychological health in dysfunctional communities should not be too narrowly construed as an individual problem, when it in fact reflects underlying social pathologies" (p. 156). In a second community psychology study, the researchers suggested that if one has a "sense of community"—whether it be in the school setting or the neighborhood—then an individual is more likely to meet supportive people, and prevent loneliness (Pretty, Andrewes, & Collett, 1994).

## **2.6 Protective factors**

Positive development requires constant exposure to interlocking systems of support, control, and structure. In the ideal, young people via schools, families, community organizations, and religious institutions constantly interact with caring principled adults. These patterns of support, control, and structure function as external assets, providing young people with webs of safety and love important for stimulating and nurturing healthy development. (Benson, 1993, p. 7)

Protective factors have been a central consideration in the investigation of risk since the late 1970s (Rutter, 1985). Protective factors have been precisely defined by Fraser (1997) as the “forces that help children resist or ameliorate risk” (p. 3). These forces have been further found to “moderate the effects of individual vulnerabilities or environmental hazards so that a given developmental trajectory reflects more adaptation... than would be the case if protective processes were not operating” (Hauser, 1999, p. 4).

According to Rutter, (1985) protective factors refer to influences that modify, ameliorate, or alter a person’s response to some environmental hazards that predisposes to a maladaptive outcome. These factors provide resistance to stress and encourage

outcomes that characterized with high adaptation and competence (Kimchi & Schaffner, 1990; Rutter, 1987). A combination of protective factors contributes to resilience, and it involves a complex interplay of multiple influences overtime (Ryff & Singer, 2003). Caring and supportive relationships within and outside the family; and or close healthy relationship with at least one adult are believed to be primary requirement for building resilience in adolescents (Berk, 2000; WestEd, 2002; Wissing & Van Eeden, 2002).

These relationships should create love and trust, provide role models, and offer encouragement and reassurance, and help bolster a person's resilience. Resilience is influenced by the environment and may be used to exploit positive features of the environment for positive outcomes (Wasonga, Christman & Kilmer, 2003). Every adolescent has the potential to be resilient. Benard (1996), as cited by Wasonga et al. (2003) states that resilience is not a genetic trait that only a few children possess; it is biologically inherent in all human beings. However, despite the biological basis for resilience, role of certain environmental influences for optimal expression of resilience cannot be ruled out. These influences are required by an individual to develop a range of personal skills and successful coping strategies to overcome adversity (Oswald, Johnson & Howard, 2004). These environmental influences are often referred to as protective factors or protective mechanisms. Protective factors moderate a person's reactions to chronic adversity leading to healthy and successful adaptation (Oswald et al., 2004; Ryff & Singer 2003). They are placed externally in the social/environmental life space of adolescents, and also serve as internal personal attributes and qualities of the individual (Oswald et al., 2004). The environmental contexts, which are major influences in developing resilience in adolescents and children, are, home, school, community, peers and the individual student's characteristics or predisposition towards

dealing with difficult life situations (Ryff & Singer, 2003). Protective factors have therefore been broadly categorized into two types:

1. Extrinsic protective factors and
2. Intrinsic protective factors.

### **2.7 Extrinsic protective factors**

Extrinsic protective factors are those features of the environment that assist adolescents to become resilient, valuable and worthwhile individuals. Adolescent's environments i.e. school, home community and peers provide these features for them to develop resilience traits. Extrinsic protective factors or external assets also known as developmental supports or protective factors, are grouped under three principles that research has shown to be essential for promoting resilience and youth development:

1. Caring relationships,
2. High Expectations and
3. Opportunities for meaningful participation.

Each of these three factors-the resilience triad- is assessed as they exist in three environments: home, school and community. These three factors develop an individual's characteristics and define resilience, performance and successful learning (Wasonga et al., 2003).

### **2.8 HOME ENVIRONMENT AND EXTRINSIC PROTECTIVE FACTORS**

The home environment in all ages and for all cultures has been recognized as powerful socializing force in children's lives. Encompassing a number of ways in which families influence their offspring's development, the environment is of central concern in human development research. Criteria like family's socioeconomic status, demographics, parental attitudes and beliefs, parental expectations, and parental behavior towards and interactions with their children have mostly been assumed as

essential measures of an adolescent's home environment. Factors like these and others have shown to have an effect on the healthy psychological development of children and adolescents. Family environment has also been recognized as one of the most important influences on psychosocial development of resilience of young people (Cairns & Dawes, 1996; Garmezy, 1983).

### **2.8.1 Caring and supportive Relationships in home**

Caring relationships are defined as supportive connections to others in the adolescents' life who model and support healthy development and well-being (Benard, 1991). Studies of human development, program evaluation research, the recent National Longitudinal Study of Adolescent Health, and several qualitative studies have identified caring relationships as the most critical factor protecting healthy and successful child and youth development even in the face of much environmental stress, challenge, and risk. These relationships convey that someone is "there" for the adolescent facing adversity. Such affiliations are demonstrated by an adult or peer taking interest in the life problems and events of the adolescent.

Most research findings probing the family environments of resilient children and adolescents posit that despite the presence of parental psychopathology, family discord/problems, or chronic poverty, most children and adolescents who are identified as resilient have had the opportunity to forge a close relationship/bond with at least one person (not necessarily the mother or father) who provided them with stable care and from whom they received adequate and appropriate attention during the first year of life (Anthony, 1974, 1987; Demos, 1989; Garmezy, 1983; Watt, 1984; Werner, 1990; Werner & Smith, 1982).

Rutter (1987) suggested that "one good parent-child relationship" substantially reduces the psychiatric risk associated with family conflict. More generally, it has been



found that having a relationship with one important person (e.g., a parent or an extended family member) who provides emotional support, affection, appropriate attention, structure, discipline, protection, and the absence of severe criticism increases the likelihood of establishing competence in an adolescent who has lived in a risky environment (Garmezy, 1985; Werner & Smith, 1982). This interaction with at least one caring adult is critical for the development of basic trust during the first stage of psychosocial development i.e. infancy (Erickson, 1963 as cited in Benard, 1991). Healthy attachments with parents foster self esteem and self efficacy among children and adolescents (Rutter, 1987).

A longitudinal study on high and low risk children conducted by Seifer and colleagues (1992) confirmed the importance of a good parent-child relationship for healthy psychosocial development in adolescence as well as in childhood (as cited in Fergusson & Lynskey, 1996). It was found that certain aspects of early mother-child interactions specifically maternal teaching style and expressed emotion acted as protective factors in both low and high risk children.

Further support for the importance of one good parental relationship in adolescence comes from a study by Spaccarelli and Kim (1995), who investigated 10-17 year old survivors of sexual abuse who had been referred to therapy. Results from this study indicated that support and warmth from the non offending parent was the key factor in dealing with the stress from the abuse which helped the victims in being able to maintain school performance, activities, and peer relations after abuse.

Another longitudinal study conducted by Franz, McClelland, and Weinberger in 1991 that examined parents' child-rearing practices when the child was five, at other childhood experiences, and at social accomplishment at age 41 found that "having a

warm and affectionate father or mother was significantly associated with adult social accomplishment and contentment”.

Wolin and Wolin (1994) have argued that the most powerful protective factor against risky behaviors is family connectedness (a factor broader than the parent-child relationship) which involves a shared sense of belonging and intimacy among family members. Weist and colleagues (1995) found that family cohesion (closeness and support) was found to be the only protective factor against discipline problems for boys, and was associated with higher self concept for girls.

Family support, a factor in family connectedness, has been shown to be a protective factor for children against risks like poor mental health and delinquent behaviors. Wills & Cleary (1996) found in a sample of 12- 15 year olds, that parent support mediate the effect of deviance-prone attitudes and peer affiliations, as well as having a significant, inverse correlation with the level of substance use. Other family oriented protective factors that mediate against adolescent alcohol and drug use are: smaller family size, low marital discord, having a caring and supportive relationship with siblings, parents, and non-family members, as well as a belief in prosocial norms and values along with commitment to school (Jenson, 1997).

Supportive relationships with adults who function as role models can be protective factors for children and youth (Garmezy, 1983; Schultz, 1991). Werner and Smith's (1992) longitudinal study of high risk children demonstrated that caring adults or surrogate parents (grandparents, uncles, aunts, neighbors, teachers, parents of boy/girlfriends) are significant protective factors for youth who successfully transitioned to adulthood.

### **2.8.2 High expectations in home**

High expectation messages are defined as the consistent communication of direct and indirect messages that the adolescent can and will succeed responsibly (Benard, 2004). It is the positive belief usually on the part of parents that their children will be successful, and that they have “what it takes “to achieve goals (Delpit, 1996).

Being a major aspect of caring relationships, this type of communication between the child/adolescent and adult reflects the latter’s belief in the youth’s innate resilience and ability to learn. Research has shown this to be a pivotal protective factor in the home, school, and community environments of adolescents who have successfully coped with adverse life situations. Research into why some children growing up in poverty still manage to be successful in school and in young adulthood has consistently identified high parental expectations as the contributing factor (Clark, 1983; Williams & Kornblum, 1985). Families that establish high expectations for their children's behavior from an early age play a role in developing resiliency in their children.(Mills,1990).

When parents convey expectations in an accepting, loving, supportive manner or in other terms have healthy and realistic expectations, adolescents are often motivated to fulfill them. (Brooks and Goldstein, 2001)High expectations on the part of parents and other family caregivers for their children’s school success has remained a consistent predictor of positive health and academic outcomes for youth over the years and increasingly so for the children (Clark, 1984; Gandara, 1995; Herman et al., 1997).

Other important factors that are associated with high expectations are family characteristics such as structure, discipline, and clear rules and regulations. Bennett, Wolin, and Reiss have found that even in alcoholic families, children tended to have better outcomes if the family was able to maintain some order and clear expectations

from them (1988). Similarly, Baumrind (1985) found lesser substance abuse among adolescents whose parents had "authoritative," parenting style characterized with warmth, support, and clear rules and expectations (as opposed to those that were "authoritarian" or "permissive").

Studies conducted by Garnezy, 1985 and Werner & Smith, 1982 found that relationship with one person, (be it a family member or an extended family member) who provides structure, discipline, protection etc is a important protective factor which increases the likelihood of establishing competence in an adolescent who has lived in a high risk environment.

Another related aspect of high expectations is that of faith. According to Werner, "A number of studies of resilient children from a wide variety of socioeconomic and ethnic backgrounds have noted that their families have held religious beliefs that provided stability and meaning to their lives, especially in times of hardship and adversity" (1990). Werner further hypothesizes that, "such faith appears to give resilient children and their caregivers a sense of rootedness and coherence, a conviction that their lives have meaning, and a belief that things will work out in the end, despite unfavorable odds" (1990).

Researchers like Hauser, 1999 and Schultz, 1991, have also suggested that having a religious affiliation, spirituality, or belief in a higher power, or God, provides support to individuals in difficult times. It seems that faith "is what helps people feel that they are not alone... What ever helps them find or make meaning in their lives"(Adams, 1999, p. 16).

Moskovitz concludes from his study on child survivors of the Nazi Holocaust that this sense of hope and expectation for the future resulting from one's religious

orientation enabled these children to learn to love and to behave compassionately toward others in spite of the atrocities they had experienced (1983).

### **2.8.3 Meaningful participation in home**

Meaningful participation is defined as the involvement of the adolescents in relevant, engaging, and interesting activities with opportunities for responsibility and contribution (WestEd, 2002). Providing young people with opportunities for meaningful participation is a natural outcome of environments that convey high expectations. Meaningful participation in home depends upon the parents being able to provide children with both autonomy and responsibility. Resilience research has documented that positive developmental outcomes including reductions in health-risk behaviors and improvement in academic performance, are associated with adolescents being given valued responsibilities, planning and decision-making opportunities, and chances to contribute and help others in their home, school, and community environments. Historically such healthy involvement in familial and scholastic matters has been associated with positive developmental outcomes for adolescents (Benard, 1991).

However there has not been much research attention on contribution made by meaningful participation of the adolescents in development of resilience in them in the 1990s. Janice Cohen's book, *Raising Compassionate, Courageous Children in a Violent World*, cites several studies documenting higher levels of well being and life satisfaction for youth who are given important responsibilities not necessarily centering around them but with family members, classmates and other community members. Assignment of chores, domestic responsibilities (including care of siblings), and even part-timework to help support the family proved to be sources of strength and competence for resilient children (Werner & Smith, 1982).

Parenting style particularly the extent to which the parents grant autonomy and opportunities for decision making to the adolescents is often found to pave way for further meaningful participation in familial matters on the part of the adolescent member.

Parents who create opportunities for their children and adolescents to have some decision- making power and to solve problems on their own help meet their children's basic need for psychological autonomy (Benard, 2004).

Eccles et al. also found "positive association between the extent of the adolescent's participation in the family decision making and intrinsic school motivation and positive self-esteem" (1993, p. 98).

Provision of optimal levels of psychological autonomy and control are characteristics of favorable parenting styles that encourage meaningful participation from adolescents. "Psychological control refers to parental behaviors that are intrusive and manipulative of children's thoughts, feelings and attachment to parents" (Barber, 2002, p. 150) which stands in contrast to the psychological autonomy provided by the parents. Hence psychological control could come in the way of building resilience in children and adolescents as it hinders the provision of autonomy to them.

The cross cultural research reported in *Intrusive Parenting: How Psychological Control Affects Children and Adolescents* (Barber, 2002) reveals consistently that higher the element of control in parental behavior, greater is the risk of exhibiting internalized and externalized problem behaviors among the adolescents. Such results were more common for cultures like India and Gaza where parents impose more control and provide lesser autonomy to their children in comparison to other individualistic cultures.

Although various other family factors have been identified as being protective of children and adolescents (for example, small family size, mother over age 17, or children with age gap of at least 2 years, the factor critical to the positive development of children is a caring, supportive family life. Such supportive environment exists at home when the adult caregivers set high and clear expectations from the adolescent members and also provide them with ample opportunities to participate meaningfully family related matters. Family environments with these characteristics therefore provide the fertile soil for the growth and nurturing of that sense of basic trust and coherence essential for human development and, further for the development of the traits of resiliency: social competence, problem-solving skills, autonomy, and a sense of purpose.

## **2.9 SCHOOL ENVIRONMENT AND EXTRINSIC PROTECTIVE FACTORS**

Identification of adolescent resilience in the environment has expanded over the years into other important contexts like the school apart from the family. Both community and school contexts appear to play a large role for especially those children whose family context contains risk factors. Schools, neighborhoods, and community settings can provide external support systems to help adolescents strengthen and reinforce their coping strategies and move towards self-defined goals. Bernard (1991) pointed out that when social support, caring and love is unavailable in the immediate family and school environment it becomes easier for the children to beat the odds and emerge successful.

Rutter on the basis of his research concluded that” schools that foster high self-esteem and promote social and scholastic success reduce the Likelihood of emotional and behavioral disturbances” (1979). There is abundant research evidence on the power of the school to influence the outcome for adolescents from high-risk environments

(Austin, 1991; Berrueta-Clement et al, 1984; Brook et al, 1989; Cauce & Srebnik, 1990; Coleman & Hoffer, 1987; Comer, 1984; Nelson, 1984; Rutter, 1979, 1984).

Researches exploring resilience in children and adolescents from the protective perspective clearly highlight the characteristics of schools that ensure healthier transition to adulthood despite being confronted with stressful life periods during this period of life. These characteristics fall under the same three categories as in the home environment. i.e.

1. Caring relationships,
2. High Expectations and
3. Opportunities for meaningful participation.

#### **2.9.1 Caring relationships in schools**

Resilience research has proved that alleviating student's intrinsic motivation is the key to experiencing stress free adolescence. Fulfilling the younger people's basic psychological needs of belongingness and safety, attainment of competence, finding learning meaningful and autonomy can make them intrinsically motivated.

Caring relationships with teachers and peers not only meet student's affiliation needs but also lend support when learning tasks are difficult or uninteresting. Repeatedly, these turnaround teachers/mentors are described as providing, in their own personal styles and ways, the three protective factors i.e. caring relationships, high expectations and meaningful participation in school (Benard, 1996; Deiro, 1996; Ladson-Billings, 1994; Moorman, 2001).

Caring relationships in school provide assurance of someone being there for the youth, of trust and of unconditional support. According to Baumeister and leary's (1995) research, the best strategy for meeting the need of belongingness is giving unconditional acceptance. However this strategy must not be equated with relaxing



expectations. It has been seen that when students are asked to define the qualities they want to have in their teachers, there has been a consensus for caring and supportive teachers who accept no excuses but at the same time are determined for their students' success (Wasley, 1997; Wilson & Corbett, 2001).

Just as in the family arena, the level of caring and support within the school is a powerful predictor of positive outcome for youth. However limited research attention has been given to the role of caring and supportive teachers in helping the adolescents cope with adversity successfully (Werner, 1990). For example, in her research Werner found that school teachers apart from family elders are often the favorite role models among the school going adolescents in Kauai. "For the resilient youngster a special teacher was not just an instructor for academic skills, but also a confidant and positive model for personal identification"(Werner, 1990).

It must be mentioned that caring is as critical to resilience in adolescents as it is to resilience in younger children. A Stanford university study of adolescents from diverse socio-economic status and racial groups found that "The number of student references to wanting caring teachers is so great that we believe it speaks of the quiet desperation and loneliness of many adolescents in today's society" (Phelan et al., 1992, p. 698).

Furthermore, studies on school dropouts repeatedly identify the lack of someone caring in school as the major reason behind dropout (Croninger & Lee, 2001; Hamovitch, 1996; Loutzenheiser, 2002; Stevenson & Ellsworth, 1993).

Bonnie Benard is very clear about the centrality of caring relationships in the educational process. "Reciprocal caring, respectful, and participatory relationships are the critical determining factors in whether a student learns, whether parents become and stay involved in the school, whether a program or strategy is effective, whether an

educational change is sustained, and, ultimately, whether a youth feels he or she has a place in this society" (Benard, 1995, p. 2).

Other researchers have also provided support for Benard's opinion. For example, in discussing the importance of relationships outside the family, Werner has repeatedly stated that her resilient children pointed to a favorite teacher who believed in them personally while skillfully teaching academic skills. Roeser, Eccles, and Sameroff (1998) found that "adolescents who viewed their teachers as providing both academic and emotional support were less likely to experience alienation from school or emotional distress". They recommend "smaller learning communities within larger schools" to help "students and teachers get to know one another" (p. 346). Young people often talking about teachers who listen to them, who notice when they are absent and who seem interested in them has been a consistent theme in resilience literature. Moskowitz' 30- to 40-year follow-up study of childhood survivors of the Nazi Holocaust who were sent from concentration camps and orphanages to a therapeutic nursery school in England at the end of World War II further highlights the power of a caring teacher. All of the resilient survivors "considered one woman to be among the most potent influences in their lives--the nursery school teacher who provided warmth and caring, and taught them to behave compassionately" (cited by Werner, 1990).

Nettles and colleagues (2000) studied a school that had experienced few successful outcomes in Washington D.C. The children in this school had experienced violence and the adverse consequences of being in such a negative environment. This study analyzed the role of social support in protecting students from the negative effects of violence on achievement. Results of the study demonstrated that there was no correlation between family support and achievement in school but a positive correlation between teachers. Support and achievement, especially in mathematics, was found. A

caring, supportive teacher was concluded in the study to be the most significant factor in Predicting academic achievement and potential for life success. Another study reinforced the above findings by concluding that “at a time when the traditional structures of caring have deteriorated, schools must become places where teachers and students live together, talk with each other, and take delight in each other's company. “My guess is that when schools focus on what really matters in life, the cognitive ends we now pursue so painfully and artificially will be achieved somewhat more naturally. It is obvious that children will work harder and do things--even odd things like adding fractions--for people they love and trust" (Noddings, 1988).

### **2.9.2 High expectations in schools**

Positive and clear expectations termed as ‘high expectations’ (often considered as core of caring relationships) guide and structure behavior and increased self efficacy beliefs in them. During the last two decades, research on successful schools and programs for youth in challenging circumstances has clearly demonstrated that high expectations –with concomitant support –is a critical factor in decreasing student drop out ratio and in increasing the number of youth who go on to the college(Masten et al., 1994; Meier, 1995).

Setting high expectations for all kids at school often lead to high rates of academic success (Rutter, 1979; Brook et al, 1989; Edmonds, 1986; O'Neil, 1991; Levin, 1988; Slavin, Karweit & Madden, 1989).According to a historical review of teacher expectations by Weinstein (2002) “across multiple studies ,teacher appear to provide those students for whom they hold high expectations more opportunities to learn, and under more positive conditions, than for students for whom they hold low expectations” (p. 51).High expectations are also a common characteristics of “high performing , high poverty” schools (James et al., 2001).

There are several ways to communicate expectations to students according to expectancy communication theory. Weinstein and her colleagues, at the University of California, have provided a conceptualization which holds that expectations-high or low-are communicated to students not only through relationships and messages but also through the structure, organization, curriculum and practice of schools (Weinstein, 2002; Weinstein et al., 1991).

Probably the most powerful research supporting the school "ethos" of high expectations as a protective shield is that reported by Michael Rutter in his book *Fifteen Thousand Hours* (1979). According to Garmezy, this work "stands forth as a possible beacon for illuminating the role of schools as a strategic force in fostering the well-being of disadvantaged children" (1991). Rutter found that even within the same poverty- stricken areas of London, some schools showed considerable differences in rates of delinquency, behavioral disturbance, attendance, and academic attainment (even after controlling for family risk factors). Apart from high level of student participation, and many, varied alternative resources like library facilities, vocational work opportunities, extra- curricular activities, teachers' clear expectations and regulations towards the students were one of the primary factors underlying success of these schools.

High expectations have also been borne out in the protective factor research of Judith Brook and her colleagues. They found that this factor, in conjunction with schools allowing for student participation and autonomy, was even able to mitigate against the most powerful risk factor for adolescent alcohol and drug use--using peers (1989).

During the last several years, research on successful programs for youth at risk of academic failure has clearly demonstrated that a school climate of high expectations

is a critical factor in reducing academic failure and increasing the number of youth going for higher education. For example, according to Phyllis Hart of the Achievement Council, a California-based advocacy group, the establishment of a "college core curriculum" in an inner-city, disadvantaged community resulted in over 65 percent of its graduates going on to higher education (up from 15 percent before the program began). Several students participating in this program stated a major factor in their decision to attend college was "having one person who believed I could do it!" (California Department of Education, 1990).

These findings are in direct contrast to the dismal outcomes of children who are labeled as *slow learners* and tracked into low-ability classes (Oakes, 1985). Hart claims, "Even students in the worst of circumstances can excel, given appropriate support, and watering down academic content or having low standards doesn't help anyone" (O'Neil, 1991). "Labels can create powerful expectations in schools however; the benefits of labeling are lost when those who are identified suffer negative consequences as a result of the labeling process." (Barth, 1991)

High expectations teachers become turnaround teachers by recognizing students' existing strengths, mirroring them back and helping students see where they are strong. They especially assist those overwhelmed youth who have been labeled or oppressed by their families, schools and /or communities to understand their personal power. It is very important to note that these high expectation educators do not label their students as "at-risk" or anything else. They communicate winning messages to their students that are challenging for instance "You can do it." "You have what it takes to succeed in this classroom and school," "You have what it take to achieve your dreams and goals," and "The world is tough out there and you have to be tougher" (Delpit, 1996, p. 200).

Another important aspect of high expectations is having equal and same expectations from and setting fair and equitable rules for behavior in the classroom for all students. Unfair and inequitable discipline policies and procedures leading to partiality or discrimination between students have mostly been cited as a major problem in schools, often having adverse impact on the students like alienation from school (Blum & McNeely, 2002).

Schools that set behavioral expectations without encouraging student input reflect a lack of belief in student's capabilities. Unless educators have a positive belief, that is, high expectations, about children's capacities, they will not be able to provide the third protective factor, opportunities for young people to be active participants in and contributors to their school community (Kohn, 1996).

### **2.9.3 Opportunities for meaningful participation in schools**

Meaningful involvement and responsibility within the school is as important for young people as is their participation in home. It is through these opportunities which include the freedom to voice one's opinion, to make choices, to engage in active problem solving, to express one's imagination and to work with and help others, in a physically and psychologically safe and structured environment, that youth develop characteristics of resilience like healthy development and successful learning: problem solving, social competence and autonomy (Benard, 1991).

"Opportunity to respond" is the key variable for differentiating effective and ineffective classrooms (Carta's primary, 1991). Such opportunities help students to be engaged "by their teachers with their instructional materials" (Cartha, 1991).

In Rutter's research on successful schools, (1979, 1984) giving responsibilities to the youth and inviting maximum participation from them were the underlying reasons behind lesser risky behaviors like delinquency among them. "According to

Rutter, in the schools with, children "were given a lot of responsibility. These schools created a variety of opportunities to ensure that all students found something they were interested in and could succeed in. ensuring maximum participation for the school goers during adolescence decreases chances of alienation among them (Rutter, 1984).

Brook et al's research, as well as that of Roger Mills, further validates Rutter's findings as protective against alcohol and drug use as well (1989; 1990). Maton's research with older adolescents and at-risk urban teenagers found that engagement in "meaningful instrumental activity" was significantly related to their life satisfaction, well-being, and overall self-esteem--and was as powerful a factor as that of social support (1990).

Developmental of healthy psychological autonomy is essential to develop the attitude and competencies characteristic of healthy development and successful learning. Participating in decisions about one's life and future is one of the major ways humans meet their fundamental need for autonomy and power. Several education reformers believe that ignoring this need --not only if children but also of family members, teachers and school staff --makes schools alienating places (Glasser, 1990; Kohn, 1996; Sarason, 1990).

Research has found that students who experience autonomy supportive school environment are most likely to be curious, mastery oriented, problem solvers and intrinsically motivated in addition to having higher sense of self-efficacy (Barber & Olsen, 1997; Chirkov & Ryan, 2001; Deci, 1995; Ryan & Deci, 2000).

Development of sense of autonomy among adolescent school goers also helps in the development of self control which according to Kohn is developed in families and schools that encourage meaningful participation of the students. (1993). As early as

preschool and with lifelong effects, students benefit from practices that promote self control.

The High/Scope Educational Research Foundation's Perry Preschool Program (Schweinhart & Weikart, 1997) found positive personal, social and economic outcomes for adults who had attended a preschool program based on active participation and child initiated learning. In contrast, adults whose preschool experience had been one of direct instructions and teacher control- whose self control reportedly dropped out of school had lower incomes and were much more likely to be repeated offenders. Clearly, a preponderance of evidence demonstrates that schools have the power to overcome incredible risk factors in the lives of adolescents--including those for alcohol and drug abuse. Ron Edmonds in his classic study on school effectiveness, concluded that school can create a "coherent" environment, a climate, more potent than any single influence--teachers, class, family, neighbourhood--" so potent that for at least six hours a day it can override almost everything else in the lives of children" (1986).

## **2.10 External assets in the community**

Like the family and the school, the community also supports the positive development of youth and plays a major role in building traits of resiliency--social competence, problem-solving skills, autonomy, and a sense of purpose in life. During the last decade, much has been written about the breakdown of the community and neighborhood life resulting in losses of those linkages that create a sense of belongingness and identity, and, which according to Emmy Warner which are essential for providing meaning to one's life and a reason for commitment and caring (Bellah, 1992; Putnam, 2000; Werner & Smith, 1982). Community psychologists refer to the capacity of a community for building resilience as "community competence" (Iscoe, 1974) and as with the family and the school systems, competent communities are



characterized by the triad of protective factors: caring and support, high expectations, and participation. Longitudinal studies during the last decade indicate that while the absence of a strong community is devastating for young people, presence of a positive community environment can be positively transformational (Mc Laughlin, 2000; McLaughlin et al., 1994; Werner & Smith, 1992).

Werner & Smith (1992) documented the power of relationships and opportunities in the community that are protective for youth and young adults from troubled families and schools. In a survey of over 100 communities, the Search Institute found that while caring and supporting families make a major difference in the lives of their own youth, caring and support in the community were especially protective for the youth with limited family and school resources (Blythe & Leffert, 1995). A competent community, therefore, must support its families and schools, have high expectations and clear norms for both the contexts, and encourage their active participation and collaboration in the life and work of the community.

#### **2.10.1 Caring relationships, high expectations and meaningful participation in community**

One of the major findings from resilience research is the power of informal mentors like neighbors and friends apart from parents or teacher or anyone who has the time to offer care and support to the adolescents, a protective factor in youth's life. This aspect of the social capital had to bear the brunt of contemporary life. The Search Institutes survey of hundreds of communities has found only a majority of youth reporting sustained, inter-generational relationships with non-parent adults (Benson, 1997).

According to Kelly, "The long-term development of the 'competent community' depends upon the availability of social networks within the community that can

promote and sustain social cohesion within the community. This implies that the formal and informal networks in which individuals develop their competencies and which provide links within the community are a source of resilience for the community and the individuals comprising it" (1988).

This characteristic of "social cohesiveness" or "community organization" has probably been the most frequently examined community factor affecting the outcome for children and families. The clear finding from years of research into crime, delinquency, child abuse, etc. is that communities and neighborhoods rich in social networks--both peer groups and intergenerational relationships--have lower rates of these problems (Garbarino, 1980; Miller & Ohlin, 1985). Similarly, Coleman and Hoffer found the intensity of the intergenerational social networks surrounding private, religious schools created a "functional community" that built social capital for youth and, consequently, higher achievement and lower dropout rates (1987).

Perhaps the most obvious manifestation of caring and support at the community level is the availability of resources necessary for healthy human development: health care, childcare, housing, education, job training, employment, and recreation. According to many researchers, access to these basic necessities is the greatest protection that can be given to the children and their families (Coleman, 1987; Garnezy, 1991; Hodgkinson, 1989; Sameroff et al, 1984; Long & Vaillant, 1989; Wilson, 1987).

The only way communities can, and have, succeeded in this endeavor is through the building of social networks that link not only families and schools but agencies and organizations throughout the community with the common purpose of collaborating to address the needs of children and families (Benard, 1989; Coleman, 1987; Hodgkinson, 1989; Mills, 1990; Schorr, 1988).

High expectation in the community takes place on several levels: in the community generally, in community youth serving organizations and through community initiatives. High expectation in the community can also be discussed in terms of how they are framed: as beliefs about children and youth's capacity, as clear expectation and guidance for behavior etc (Benard, 2004).

A loss of community relationships between adults and adolescents increasingly means that non parenting adults in the community no longer know the youth, and no longer shares norms for young's people behaviors (Public Agenda, 1997). Unless community adults get to know and develop relationships with the young people, they will remain vulnerable to negative stereotypes and convey messages to children and youth that they are not valued (Benard, 2004).

On the other hand are communities including poor ones-where adults do know their young people, do look out for them and do have shared high expectations for their behavior (Sampson et al., 1997).

Investigations into successful youth-serving community based organizations consistently find a sense of structure and safety as their critical foundation (Eccles & Gootman, 2002; McLaughlin et al., 1994). The Institute of Medicine reports, "A key characteristic of successful community program is that they have clear rules about expected behavior when in the program" (Eccles & Gootman, 2002, p. 93).

An important aspect of high expectations is the belief of adults about the capacities of their young people. Young people who experience such protective beliefs learn to respect and believe in themselves. According to *Urban Sanctuaries* (McLaughlin et al., 1994), the first and most elemental attribute of the successful youth worker is seeing the potential and not the pathology of the youth, including

disadvantaged youth. These youth workers operate from a resiliency perspective of having high expectations from their youth.

The natural outcome of having high expectations for youth, for viewing youth as resources and not problems, is the creation of opportunities for them to be contributing members of their community. Healthy human development involves the process of bonding to the family and school through the provision of opportunities to be involved in meaningful and valued ways in family and school life. It also involves developing a sense of belonging and attachment to one's community also requires the opportunities to participate in the life of the community. According to Kurth-Schai, several cross-cultural studies have clearly indicated that "youth participation in socially and/or economically useful tasks is associated with heightened self-esteem, enhanced moral development, increased political activism, and the ability to create and maintain complex social relationships" (1988). On the other hand, other studies demonstrate that "lack of participation is associated with rigid and simplistic relational strategies, psychological dependence on external sources for personal validation, and the expression of self-destructive and antisocial behaviours including drug abuse, depression, promiscuity, premature parenthood, suicide, and delinquency" (Kurth-Schai, 1988).

Similarly, Richardson et.al concluded from their research on the heavier alcohol and drug use patterns of latchkey youth that "traditional societies had clearly defined roles for young adolescents in the life of the community. These contributory roles have largely been replaced by autonomy and leisure and frequently accompanied by no adult supervision. This time could be put to good use both in the home and in the community. The family or community that learns to direct the energy, general good will, and potential of these young adolescents into community or individual

improvement projects may find that they benefit the community as well as the individual" (1989). The challenge, then, for communities as well as for families and schools, is to find ways "to harness that force, to capture their inherent need for an ideology and group," to meet their basic human needs of connecting to other people and to a larger meaning or purpose (Levine, 1983).

## **2.11 Intrinsic protective factors**

Intrinsic protective factors are individual characteristics, also known as internal assets or personal competencies often found to determine resilience. The intrinsic factors along with the above-described extrinsic protective environments help to satisfy the primary needs of adolescents that include the need to belong, good physical and psychological health, finance and the opportunity to take part in decision-making. Researchers and writers have used different names for these personal strengths but most of them fall under one of the following four categories (Benard, 2004).

- (1) Autonomy.
- (2) Social Competence.
- (3) Problem solving and
- (4) Sense of purpose.

### **2.11.1 Autonomy**

Autonomy is the capacity to make decisions independently to serve as one's own source of emotional strength, and to otherwise manage one's life tasks without depending on others for assistance (Shaffer, 2002). It facilitates the capacity for one to function as their own source of emotional support, to make decisions independently and to care for oneself (Sternberg, 1985). Autonomy includes self-esteem, self-efficacy, mastery, internal locus of control, and a sense of coherence (Gore & Eckenrode, 1994 as cited in McGinty, 1999; Masten, 1990; Rutter, 1984, 1988). These characteristics

feed into each other in a circular, reinforcing way. Autonomy is associated with positive health and sense of well-being (Deci, 1995) and is also an important developmental task of adolescence and is seen as a protective factor for resilience (McGinty, 1999).

#### **2.11.1.1 Self-esteem and self-efficacy**

Self-esteem is the evaluation an individual makes and maintains with regard to the self or in other terms is the personal or self judgment of worthiness (Pervin & Oliver, 2001; Lippa, 1994). Self-esteem has been emphasized as a key variable in determining resilience. A basic feature of resilient adolescent learners is that their self-esteem and sense of competence (Jew, Green & Kroger, 1999) have been maintained (Brooks, 1996) or, if damaged, have been repaired. Resilient adolescent learners also have an optimistic view of their experiences; even in the midst of suffering they maintain a positive approach in coping with adversity (Rak & Patterson, 1996).

#### **1.11.1.2 Mastery**

Mastery is an inborn motive to explore, understand and control one's environment (Shaffer, 2002). Factors at home that influence an adolescent mastery include the quality attachments, the aspects of home environment and the parenting behavior that the parents utilize towards the adolescents. Mastery-oriented adolescents display better problem-solving skills and a sense of curiosity as well. This means a strong willingness to master helps to satisfy personal needs for competence or mastery (Gotfried, Flemming & Gotfried, 1998 as cited in Shaffer, 2002).

#### **2.11.1.3 Internal locus of control**

The concept of locus of control emerges from the Attribution Theory by Weiner in 1974. The locus of control can be internal or external. The internally controlled person believes that reinforcements are determined largely by personal effort, ability

and initiative. The externally controlled person believes that other people, social structures, luck or fate determines reinforcements. A person's perception of locus of control develops as a result of life experiences, including the adolescent child-rearing practices to which the person has been exposed (Bayne, 2000). Resilient adolescent with an internal locus of control also copes better with stress, which correlates positively with high self-esteem and self-efficacy (Bayne, 2000). Furthermore, resilient adolescent with a strong internal locus of control believes in their ability to control life's events (Pervin & Oliver, 2001).

#### **2.11.1.4 Sense of coherence**

Sense of coherence, as defined by Antonovsky, is a:

Global orientation that expresses the extent to which one has a pervasive, enduring though dynamic sense of confidence that (1) the stimuli we experience from both our internal and external worlds are structured, predictable and explicable, (2) that we have the resources available to meet the demands of these stimuli, and (3) that these demands are worthy of both the investment and the engagement. (Antonovsky, 1987, p.19)

The three central components of manageability, comprehensibility and meaningfulness are linked and integral to the sense of coherence (McCubbin, et al. 1998). Manageability refers to the extent to which people feel they have the resources to meet demands that arise in their daily lives. It includes resources under direct individual control and those accessible from family, friends, school and community.

Comprehensibility refers to the extent to which sense and order can be drawn from the situation, and the world seems understandable, ordered, consistent and clear. In translating an exceptional experience, such as school violence, illness, disability or unpleasant symptoms into the "normal" context of their daily lives, people (resilient adolescent learners) make sense of what is happening to them and gain strength to deal with the situation (Cowley & Billings, 1999).

The sense of meaningfulness refers to their ability to “make sense” of symptoms, experiences, treatments and coping mechanisms in the context of their own family, friends, personal contacts and reasons for living (Cowley & Billings, 1999; McCubbin, et al. 1998). Adolescents in order to resiliently face distress at home or school need to have sense of coherence along with internal locus of control of their life events (Rutter, 1984).

#### **2.11.2 Social competence**

Resilient individuals are often charismatic and have an agreeable temperament which may contribute to their capacity to elicit positive responses from others (Garmezy & Rutter, 1983; Werner, 1990). For example, a study of maltreated children who were resilient, found that these children possessed the capacity to attract other people who were capable of facilitating good experiences. This helped protect them from depression resulting from their negative experiences (Mrazek et al, 1987). Possessing a charismatic personality facilitates a person's capacity to elicit and sustain helpful social relationships. This type of ability is the social competence usually a characteristic of resilient people. Research on resilient children whose parents suffered from a psychiatric illness found that these children had positive social skills, were friendly, well-liked by peers and adults, were more socially responsive, sensitive, altruistic and cooperative (Robin, Aronoff, Barclay & Zucker, 1981).

#### **2.11.3 Problem solving**

Problem-solving has been identified as a protective factor the resilient individuals use to overcome adversity. Numerous studies have found that resilient individuals possess good problem solving skills (Benard, 1993; Block et al, 1980; Haggerty et al, 1996; Moskowitz, 1983; Murphy et al, 1976), which help them to implement their innovative thoughts and ideas. This is accomplished by systematically



planning the steps one must take in order to achieve their goals. Some research exists which demonstrates that when people use problem-solving, it permits them to appraise their environment, change their behavior in an attempt to alter the environment or the actions of others in the environment (Sowa, McIntire, May & Bland, 1994).

#### **2.11.3.1 Flexibility**

Flexibility is a problem solving skill which means the ability to find out alternatives and attempt these alternatives to find out solutions for both social and cognitive problems. It is the ability to change course and not to get stuck. Valliant in his book, *Aging Well*, (2002) documents that adaptive coping which is another form of flexibility is an important life skill. It has also been found to be one of the foci of current conflict resolution programs (Crawford & Bodline, 1996).

#### **2.11.3.2 Resourcefulness**

Resourcefulness, which is a critical survival skill, involves identifying external and surrogate resources of support. It is a skill also referred to as resource utilization, help seeking etc. Werner and Smith (1992) found that this an important skill which worked as a link between challenged youth and environmental resources. Gina O'Connell Higgins (1994) on her research on sexually abused children also documented the importance of resourcefulness in connecting to turnaround people and places. Beardslee (1997) found it to be an essential component in early intervention programs supporting children growing up in alcoholic families.

#### **2.11.4 Sense of purpose**

Many individuals classified as resilient believe they have a purpose in life. They often have the belief that they will have a bright future if they are goal directed and optimistic (Benard, 1995). This can sustain them in the belief that even in the presence of challenges things would work out in the end (Beardslee, 1989; Antonovsky, 1979).

They have a sense of purpose which they embrace and strive towards even amidst adversity.

## **2.12 Adolescence resilience and demographic variables**

### **2.12.1 Gender**

In order to understand the significance of resilience factors in coping with risk factors (Rutter, 1987), several studies have focused their attention on the influence that individual characteristics such as gender have on individual's ability to cope with risk factors within their environment. There has been a plethora of research studies revealing significant gender differences in resilience. Most of these studies, at times, have shown that the ability among adolescents to encounter and cope with adversities and stress in life to be higher among adolescent' girls than in boys but sometimes the results have shown relatively higher resilience in boys. Gender has also been found to be an important individual factor that conditions the effect of stress on adjustment, although the effect of gender varies with age. Most studies find that during early and middle childhood, boys are more vulnerable to stressful life events, such as school violence, than are girls, because of their socialization (McGinty, 1999). However, during adolescence the reverse has been found with girls being more vulnerable in comparison (Kavanaugh, 1994 as cited in Smith & Carlson, 1997).

Boys are generally less resilient than girls to all kinds of risk factors, including prenatal and birth injuries, specific educational delays and family discord because the act of seeking help could be linked to resilience and girls under stress seek and get social support, even from parents (Masten, 1988 as cited in Milgrim & Palti, 1993) with Grotberg finding that girls used these resilience factors more than boys (Hampel & Petermann, 2005). In contrast, boys use physical recreation such as sport to cope with adversity (Frydenberg & Lewis, 1993). In a similar finding, Bird and Hams (1990) in

their study found that female 8th graders reported using social support (crying or talking to a friend) significantly more often than males, whereas males reported using more ventilation strategies (swearing, complaining) than females.

Girls are also more resilient to at least some genetic risk factors. Fewer girls have specific developmental disorders; and schizophrenic illnesses occur later, tend to be milder, and, as a consequence, have less impact on girls than boys, both in marriage and on fertility rates (Milgrim & Palti, 1993). Girls exposed to adversities such as family discord and family breakdown may appear to be more resilient in early life. However in later life they tend to mostly suffer from depression and personality disorders mostly resulting from disturbed family life thus leading to disturbed marital life and inadequate mothering in future. Boys exposed to family aggression tend to develop negative attribution styles, perceiving ill intent in their, for example, friends where none was intended and reacting aggressively as a result. Girls, by contrast, may have different attribution styles and develop internalizing problems instead (Smith & Carlson, 1997). Gadzella (1994) found that girls reported experiencing significantly more stressors and negative reactions (including physiological, emotional, and behavioral reactions) to stressors than their male counterparts. Additionally, Werner and Smith (1982) reported that adolescent girls are at higher risk for some mental health disorder.

On the other hand, in boys, the manifestations of difficulties especially conduct disorders in early life, have more ominous prognoses for later delinquency. Research done as part of the Ontario Child Health Study demonstrated that for 12-16 year old youth, the presence of domestic violence and parental problems (parental mental illness and/or criminality) significantly increased the likelihood of psychiatric disorders (conduct disorder, emotional disorders, hyperactivity, and/or somatization) (Rae-Grant,

Thomas, Offord, & Boyle, 1989). Researchers found that there may be a gender component to this also in that boys tend to show more severe and prolonged disturbances than girls to family discord or divorce (Chess, 1989). Hethenngton and colleagues 1982, as cited in Rutter, 1987, suggested that gender differences in adolescent resilience may be due to a variety of reasons, including that parents are more likely to quarrel in front of boys, or that boys are more likely to react with disruptive oppositional behavior. However, there is no evidence that being female is associated with greater resilience in terms of discord and divorce (Fergusson & Lynskey, 1996).

However there have been contradictory findings in which adolescents males are found to cope with life stressors better than the girls. Gender differences have been suggested in terms of the impact of dealing with environmental stress. Ge and colleagues, in a four year study, found that depressive symptoms in girls increased throughout adolescence and were associated with changes in uncontrollable, stressful life events, whereas boys' symptoms remained stable during this period. The researchers suggested that "girls are found to be more reactive than boys to these environmental adversities" (Ge, Lorenz, Conger, Elder, & Simons, 1994, p. 479). It is important to note that in this study caring and support by a parent was found to be a mediating protective factor.

Although research is far from conclusive in deciphering the exact role of gender and as the trends have suggested, the results are mixed, but on balance we can say that there is evidence that females tend to actively seek out social support more than males, thereby increasing their likelihood to be more resilient than them, whereas in case of males the chances are that they are less likely to do the same.

### **2.12.2 Family type**

Family is universal and typically consists of a married man and woman, and their children. When we take a look around, we find that people do not live all by themselves, they live in families. And it's not just in India that we live in families but it is to be found everywhere. The fact is that family is universal. There are generally two types of families in India:

#### **2.12.2.1 Joint family**

The traditional Indian joint family consists of a man, his wife, his unmarried daughters, his sons and their wives and children. If the grandsons are married, then their wives and children are also a part of the same family. Joint family is made up of a number of nuclear families living together under the same roof. They share a common kitchen and hold common property. The oldest male member is generally the head of the family and the decision-maker for the family (The family, n.d.). But the women also play a significant role in decision making as they influence the male members to a large extent. One of the benefits of joint family is the shared environment and the feeling of security for the family members. It cares for the old, the helpless and the unemployed in the family and thus encourages family members to be cooperative and accommodating.

#### **2.12.2.2 Nuclear family**

The term nuclear family is used to distinguish a family group consisting of most commonly, a father and mother and their children, from what is known as an extended family. Nuclear families can be any size, as long as the family can support itself and there are only children and two parents, nuclear families meet its individual members' basic needs since available resources are only divided among few individuals or the family would be known as an extended family (The family, n.d.). It encourages

initiative, independence and self reliance among its members. Nuclear families provide greater scope for and encourage decision making among the children, which gives them greater self-confidence. As the number of family members is few, there is considerable privacy and opportunities for the members to interact with each other. This results in deeper emotional ties among the members.

Although it has been found that resilience is usually higher in adolescents coming from smaller size families (Benard, 1991, 1993; Majoribanks, 1996; Werner & Smith, 1982) than those from larger size families (Garmezy, 1993; Miller, 1996; Rutter, 1979, 1983; Sameroff & Seifer, 1987), adolescents resilience with respect to joint and nuclear families has not been researched particularly in the Indian context.

### **2.12.3 Socio-economic status**

Socio economic status has been one of the most commonly investigated indices of stress but there is a little consensus whether it leads to vulnerability in children or works as protective factor (Masten et al., 1988). Whether this variable is called a risk factor or a protective factor seems to depend on which end of the continuum is emphasized (Newcomb, McCarthy, & Bentler, 1989; Stouthamer-Loeber et al., 1993). While Seifer, Sameroff, Baldwin and Baldwin (1992) used low socio economic status as a potential risk factor, others like Masten et al. (1988) included high socio economic status as a potential protective factor. There have been a number of studies where the effect of low socio economic status has been seen on a number of variables. It has also been studied in the context of resilience where the relationship of low family income with the development of resilience in youth is complex; it cannot be assumed to have a direct causal effect on resilience.

It is a major risk factor acknowledged to influence children's and adolescent's social and emotional functioning, as well as their cognitive competence. For Schoon

(2006) socioeconomic adversity is represented by “living conditions, characterised by low social status, poor housing, overcrowding, and lack of material resources” (p. 9).

Adolescents growing up in poverty, for example, are at risk of a number of negative outcomes including poor academic achievement and violent behaviour, like for example, Coleman et al. (1966) reported that a student’s socio-economic status was the most important predictor of student success.

Studies such as those done by Werner and Smith (1998), pioneers in the field of resilience research, have shown that lack of experience of attachment early in life, among children can be the result of environmental conditions, such as living in poverty which is considered to be the major source of various types of stresses among these children.

Koralek (1999) identified risk factors, situations, and characteristics that are thought to contribute to the probability that a child will have great difficulty dealing with in life. An example of a risk factor is poverty, because not only it affects the self esteem of the individual, a limited access to community recourses also leads to many hardships in life and thereby reducing their chances to be resilient in life (Fergus & Zimmerman, 2005). The economic hardships that are caused by low socio economic status leads to disruption in parenting ,an increasing amount of parenting conflicts , and an increased likelihood of depression in parents and single parent households (Eamon, 2005).For these reasons socio economic status is closely tied to home environment and one could argue that, as has been proved by several researches, that, a conducive home environment plays a very significant part in the development and sustenance of resilience in adolescents.

On the other hand an equal number of studies have found that broader socioeconomic conditions can be important protective factors (Hauser, 1999; Mills,

1996). The importance of a sound socio economic status can be summed up in the words of Benard.

The most obvious manifestation of caring and support at every level is the availability of resources necessary for healthy human development: health care, child care, housing, education, job training, employment, and recreation....The greatest risk factor for the development of nearly all problem behaviors is poverty. (1991, p. 15)



**CHAPTER THREE**

**RESEARCH DESIGN**

**&**

**METHODOLOGY**

## **RESEARCH DESIGN AND METHODOLOGY**

The main aim of this chapter is to explain in detail the research methodology used. The methods and procedures utilized in obtaining the results to meet the research objectives are provided. Additionally, the methodology provides detailed information about how the study was conducted, which procedures were used in the study, the description of the participants, and how the variables are operationally defined and the measures used. Finally, the ethical statement for performing the research and protecting the subjects of the study is clearly stated.

### **3.1 Research purpose, significance and objectives**

Adolescents need to be resilient in order to cope and conquer difficulties and achieve the respective goals in their lives. Nevertheless concern for our nation's youth continues to grow with the complex issues and problems adolescents face today. With the large number of risk factors, a focus on protective factors that safeguards youth and promotes resilience is needed. It is important to build higher levels of resilience among the youth experiencing adolescence so that they can face unusually difficult situations in life without resorting to violent expression (Edwards, 2001). Increasing the number of protective factors in an adolescent's life is one strategy we can use to protect our nation's future. There is a rising need to explore aspects of living environment like home and school that would be conducive for making the adolescents in Indian society resilient to daily life stressors.

Therefore, the purpose of this study is to explore the home and school protective factors along with other demographic factors leading to resilience in adolescents. The significance of this research lies in helping to clarify the roles that families and schools can play in building resilience in adolescents of contemporary Indian society.

The following are the broad objectives of the present research:

1. To investigate the relationship, if any, between home environment and resilience among adolescents.
2. To investigate the relationship, if any, between school environment and resilience among adolescents.
3. To investigate the relationship, if any, between demographic variables and resilience among adolescents.

### **3.2 Research design**

The current research is a survey based study with a cross sectional design. In this study resilience was conceptualized as the dependent variable and home and school environments as well as certain demographic variables like family type, gender and socio-economic status were conceptualized as independent variables. *Resilience* in adolescents for this study was operationally defined as an overall strength or capacity to face adversities or life stressors through positive belief system which is nurtured by external protective factors like home and school environment. *Home environment* for this study, was defined as an environment where an adolescent member experiences caring relationships with and healthy expectations from the family members and indulges in meaningful participation in family related matters. *School environment* is an external protective factor, which in the present research, was defined as an environment, where an adolescent student experiences caring relationships with and healthy expectations from the school faculty and takes meaningful participation in school and class related matters.

### **3.3 Sample**

The sample of this study consisted of 130 boys and 130 girl students studying in senior secondary and high school grades. The age range of the respondents was 14

years to 18 years (Mean=16.61 years; SD=1.04). The research scales were administered on 300 student sample, however about 40 forms were found to be incomplete and were thus rejected. The final sample comprised of 260 adolescent students (N=260).

### **3.4 Research tools used**

All participants completed the set of questionnaires in paper-and-pencil format. The set includes measures designed to assess for factors believed to contribute to adolescent's resilience. The instruments included a demographic sheet, The Resilience Scale (Wagnild Young, 1993), and Home and School environment subscales of Resilience Youth Development Module (RYDM) of California Healthy Kids Survey (CHKS).

#### **3.4.1 Demographic sheet**

The demographic sheet included a total of 13 items. Participants were asked about general personal information including their name, age, gender, religion, class, family type, parent's occupation, parent's education and their monthly income (see Appendix A).

#### **3.4.2 Resilience Scale**

Wagnild and Young's Resilience Scale (1993) was chosen to assess resilience levels in the adolescent participants on account of the positive tone of its items and its relative brevity, and its ease of administration and scoring (see Appendix B). The scale items were originally drawn from an initial qualitative study done by Wagnild and Young (1993) on 24 women who had adapted successfully to a critical event in their lives. It consists of 25 items measures the following five sub dimensions:

1. Equanimity i.e. a balanced perspective of one's life and experiences,
2. Perseverance i.e. persistence despite adversity or discouragement,
3. Self-Reliance i.e. belief in oneself and one's capabilities,

4. Meaningfulness i.e. realization that life has purpose, and
5. Existential Aloneness i.e. realization that each person's life path is unique

All the items were scored on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*), with possible scores of 25 to 175. As per the norms (Wagnild, 2003), in this study total score above 146 indicated strong or high resilience while below 121 indicated weak or low resilience.

Wagnild and Young (1993) reported internal consistency reliabilities for the instrument ranging from .76 to .91 from several of their prior studies. Test retest reliabilities ranged from .67 to .84. Correlations with other instruments included measures of morale (.54, .43, and .28), Life satisfaction (.59 and .30), Perceived stress (-.67 and -.32), Symptoms of stress (-.24), depression (-.36) and self esteem (.57). For this study the internal consistency (alpha) was found to be .75.

### **3.4.3 Home environment and School environment scale**

The Home and School Environment questionnaires are subscales of The Resilience and Youth Development Module (RYDM.) which is a component of California Healthy Kids Survey (WestEd, 2002). The RYDM is devoted completely to assessing the internal and external assets associated with positive youth development and resilience (WestEd, 2002). The RYDM provides comprehensive and balanced coverage of external assets in home and school environment (see Appendix C).

The full RYDM contains 59 questions that measure 17 external and 6 internal assets in the home, school, community, peer group and in the individual domains. Both, the home and school environment scales for measuring external assets, have 9 items each, and measure three common dimensions;

1. Caring relationships i.e. supportive connections with others, like having a person who is there and who listens non-judgementally.

2. High expectations i.e. the consistent communication of message that the adolescent student/family member can and will succeed, a belief in youth's innate resilience, and the provision of guidance that is youth centred and strengths focused.
3. Meaningful participation i.e. the involvement of adolescent student/family member in relevant, engaging and interesting activities and having the opportunities for responsibility and contribution (WestEd, 2002).

Each item has four response options (very much true, pretty much true, a little true and not at all true) out of which the participants had to choose the one option which they felt best applied to them. The scoring ranged from 4 to 1 on the four point Likert scale. The values 4,3,2,1, attached to each response option were averaged and then the following score categories were derived:

**High scores** -percent of students with average item response above 3.High score of the two scales were indicators on good home and school environment.

**Moderate score** -percentage of students with averaged item response of at least 2 but less than or equal to 3. Moderate score on the two scales were indicators of moderate home and school environment.

**Low scores** -percentage of students with average item response below 2. Low score on the two scales were indicators of poor home and school environment.

Cronbach's alpha of the three dimensions in the home environment scale ranged from .70 to .80.For the three dimensions of school environment scale, Cronbach's Alpha was found to range between .75 to .90 (Constantine & Benard, 2001).Good construct validity of both the scales has also been reported (Hanson & Kim, 2007).

### **3.5 Procedure**

Initially eight schools in district Aligarh were visited for seeking permission for data collection, out of which permission was granted by only four schools. Informed consent for participation was taken from the students and they were made assured of the anonymity of their identities and confidentiality of their responses. The tests were administered in the school classrooms during free hours or periods especially allotted for conducting the survey.

Before the questionnaires were distributed to the voluntary participants, a good rapport was built with the students and an introductory discussion was held highlighting the purpose of the study and how the results of the study would be used. Detailed instructions on how to complete the questionnaires were also provided. The respondents were also encouraged to ask for assistance, in case they experience difficulties in filling up the questionnaires. The data collection procedure usually lasted for one hour.

### **3.6 Data analysis**

The research data was analyzed using Statistical Packages for Social Sciences (SPSS) version 16. Frequencies and percentage counts were taken to compute proportions of participants under various demographic categories like gender, Socio economic status, family type etc. Descriptive statistics including mean and SD values of resilience and its dimensions, home environment and its dimensions and school environment and its dimensions were calculated. Pearson's Product Moment correlation was computed among the above mentioned variables. Parametric statistical analyses that include Chi-square, independent sample t test, ANOVA and step wise linear regression were conducted to examine the effects of home environment and school environment along with demographic variables on resilience. The demographic

variable, socio economic status was divided into 3 groups, high, middle and low on the basis of quartile deviations of the average monthly family income.

### **3.7 Ethical considerations**

The following ethical issues were fulfilled for the present research study:

**3.7.1 Confidentiality and anonymity:** In this research confidentiality and anonymity were respected. The information given was kept safe and was not used unfairly to compromise the research. The subjects were convinced that the results will have no personal consequences against them. Every individual who has access to the information is obliged to maintain confidentiality.

**3.7.2 Voluntary participation:** Participation was voluntary no one was forced to participate. There was no payment for completing the survey.

**3.7.3 Withdrawal:** Students were free to withdraw anytime they feel like without any penalty.



# **CHAPTER FOUR**

## **RESULTS**

## RESULTS

This chapter presents the instrument reliabilities, intercorrelations among the variables, and the multiple regression analysis used to evaluate the research questions. First, instrument reliabilities for the scales and subscales used are presented which is followed by a demographic profile of the participants of the study. Third, means and standard deviations of the measures (along with their dimensions) used in this study are reported. Fourth, the results of parametric statistical analysis (e.g. Chi-square, ANOVA, post-hoc) are reported. Fifth, the intercorrelations among the predictor and criterion variables are given. Lastly, the results of the step-wise multiple regression analyses, which examined resilience, are presented.

**Table 4.1 Instrument Reliabilities**

Measures	Alpha	No: of items
Resilience Scale	.75	25
Home Environment Scale	.81	9
School Environment Scale	.79	9

**Table 4.1** Internal consistency reliability was computed for the instruments that were used to measure resilience, home environment and school environment. The resulting Cronbach's alpha coefficients were adequate and ranged from .75 to .81.

**Table 4.2 Participants Demographic Profile: Frequencies & Percentages.**

Demographic Variables	Categories	F	%
Gender	Male	130	50
	Female	130	50
Family Type	Joint	79	30.4
	Nuclear	181	69.6
Father's Occupation	Business	153	58.8
	Service	106	40.8
Mother's Occupation	Housewife	230	88.5
	Service	29	11.2
	Business	1	0.4
Father's education	<10 <sup>th</sup> grade	13	5
	Up to 10 <sup>th</sup> grade	24	9.2
	Unto 12 <sup>th</sup> grade	28	10.8
	Graduation	85	32.7
	> Graduation	110	42.3
Mother's Education	<10 <sup>th</sup> grade	27	10.4
	Up to 10 <sup>th</sup> grade	39	15.0
	Up to 12 <sup>th</sup> grade	57	21.9
	Graduation	85	32.7
	> Graduation	52	20.0
Socio-economic groups	High	85	32.7
	Middle	47	18.1
	Lower	128	49.2

**Table 4.2** presents the demographic profile of the respondents. The table shows that the sample comprised of 50% males and 50% females. 30.4% of which came from joint families whereas 69.6% of the participants had nuclear families. 58.8% of the participants reported having business as their father's occupation whereas 40.8% had their fathers in service sector. As far as mother's occupation is concerned, a sizeable percentage of participants (88.5%) reportedly had their mother's who were housewives which stands in total contrast to only 11.2% of participants who had their mothers doing service and only 1 participant had her mother in business. Only 5% participants reported having their father's education as less than grade 10 whereas the largest group which consisted of 110 participants and accounted for 42.3% of the

sample reportedly had fathers with educational qualification beyond graduation. In case of mother's education, the largest group of the participants (32.7%) reportedly had mothers with educational qualification up to graduation, followed by 21.9 % of the participants who reported their mother's educational status as up to standard 12 which is followed closely by 20% of the participants who had mothers who were post graduates. The educational status of the mothers of participants as less than standard 10 and up to standard 10 were 10.4% and 15% respectively. The table further shows that 32.7% belonged to the high socio economic group, 18.1% belonged to the middle income group and the participants in the lower group accounted for the largest percentage of the sample i.e. 49.2%.

**Table 4.3 Descriptive Statistics: Means and S.D. (N=260)**

<i>Variables</i>	<i>Mean</i>	<i>S.D</i>
1.Resilience	131.86	14.077
1a. Meaningfulness	39.39	4.67
1b. Equanimity	28.50	5.23
1c. Self-reliance	32.02	4.68
1d. Perseverance	15.52	2.94
1e. Existential Aloneness	16.42	2.82
2. Home Environment	28.24	5.09
2a. Home Caring Relationships	9.60	2.20
2b. Home High Expectation	9.97	1.91
2c. Home Meaningful participation	8.67	2.13
3. School Environment	24.49	5.37
3a. School Caring Relationships	8.15	2.39
3b. School High Expectation	8.46	2.46
3c. School Meaningful participation	7.88	2.16

**Table 4.3** shows the descriptive statistics i.e. mean and the S.D values of resilience, home environment and school environment along with their sub-dimensions. On the whole adolescents in the current study had moderate level of resilience as per the norms of resilience measure used in the study.

**Table 4.4 Cross-tabulated Frequencies of Levels of Resilience across Boys and Girls**

Resilience	Gender		
	Boys	Girls	Total
Low	24	32	56
Moderate	77	80	157
High	23	17	40
Total	124	129	253

**Table 4.4** shows that majority of the adolescent boys and girls have moderate level of resilience (Boys:  $f=77$ ; Girls:  $f=80$ ). In comparison to the boys ( $f=24$ ) it was the girls who had lower level of resilience ( $f=32$ ). In comparison to the girls ( $f=17$ ), it was mostly boys who had higher level of resilience ( $f=23$ ).

**Table 4.4.1 Chi Square Analysis of Resilience across Boys and Girls**

$\chi^2$	2.00 <sup>a</sup> (df=2)
Likelihood Ratio	2.00 (df=2)
Linear by Linear Ratio	2.6 (df=1)
Pearson's R (Interval by interval)	-0.08
Spearman's R (Ordinal by ordinal)	-0.08
N	253

(Note: 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.60.)

**Table 4.4.1** shows that resilience did not differ significantly by gender  $\chi^2(2, N = 260) = 2.00, p > .05$ ). Pearson and Spearman R values in the above table show that the gender and resilience were found to be uncorrelated in the study (Pearson  $R = -0.08, p > 0.01$ ; Spearman  $R = -0.08, p > 0.01$ ). On the whole, the result reveals that resilience was not related with gender.

**Table 4.5 Cross-tabulated Frequencies of Levels of Resilience across Joint and Nuclear Families**

Resilience	Family Type		
	Joint	Nuclear	Total
- Low	43	13	56
Moderate	110	47	157
High	24	16	40
Total	177	76	253

(Note: 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.60.)

**Table 4.5** shows that most of the adolescents from joint families had moderate level of resilience ( $f=110$ ). The table also shows that most of the adolescents from nuclear families had moderate level of resilience ( $f=47$ ). However the number of adolescents coming from joint families is more than those coming from nuclear families. Majority of the adolescents ( $f=43$ ) had lower resilience while only 13 adolescents from nuclear families had lower level of resilience indicating that resilience is lower mostly in adolescents living in joint families. 24 adolescents who scored higher on resilience were from joint families.

**Table 4.5.1 Chi Square Analysis of Resilience across Joint and Nuclear Families**

$\chi^2$	3.13 <sup>a</sup> (df=2)
Likelihood Ratio	3.09 (df=2)
Linear by Linear Ratio	3.04 (df=1)
Pearson's R (Interval by interval)	0.11
Spearman's R (Ordinal by ordinal)	0.10
N	253

**Table 4.5.1** shows that resilience did not differ significantly with respect to joint and nuclear families of the adolescents  $\chi^2(2, N = 260) = 3.13, p > 0.05$ . Pearson and Spearman R values in the above table shows that the family type of the adolescents and resilience were found to be uncorrelated in the study (Pearson R= 0.11,  $p > 0.01$ ; Spearman R= 0.10;  $p > 0.01$ ). On the whole, the result reveals that resilience was not related with family type.



**Table 4.6 Cross-tabulated Frequencies of Levels of Resilience across Three Levels of Socio- Economic Status**

Resilience	Socio-economic Status			Total
	Low	Moderate	High	
Low	17	11	28	56
Moderate	52	30	75	157
High	13	6	21	40
Total	82	47	124	253

(Note: 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.60.)

**Table 4.6** shows that majority of the adolescents coming from higher socio-economic background ( $f=28$ ) had lower level of resilience. Also majority of the adolescents coming from higher socio-economic group had moderate level of resilience ( $f=75$ ). 52 adolescents from lower socio economic group had moderate level of resilience. Only 30 adolescents from middle socio-economic group scored moderate on resilience measure. Comparatively most of the adolescents reportedly having higher resilience were from higher socio-economic group ( $f=21$ ).

**Table 4.6.1 Chi Square Analysis of Resilience across Socio-Economic groups of Adolescents**

$\chi^2$	0.6 <sup>a</sup> (df=4)
Likelihood Ratio	0.6 (df=4)
Linear by Linear Ratio	0.00 (df=1)
Pearson's R (Interval by interval)	-0.03
Spearman's R (Ordinal by ordinal)	-0.00
N	253

**Table 4.6.1** shows that resilience did not significantly differ with respect to joint and nuclear families of the adolescents  $\chi^2(4, N = 260) = 0.60, p > 0.05$ . Pearson and Spearman R values in the above table shows that the socio-economic status of the adolescents and resilience were found to be uncorrelated in the study (Pearson R= 0.11,  $p > 0.01$ ; Spearman R= 0.10;  $p > 0.01$ ). On the whole, the result reveals that resilience was not related with socio-economic status.

**Table 4.7 Effect of Home and School Environments on Resilience  
(N= 260): 3 X 3 ANOVA**

Source	Levels (N)	Sum of Squares	df	Mean Square	F
Home Environment	H1(159); H2 (94);H3(7)	3132.207	2	1566.103	11.906**
School Environment	S1(78);S2(155);S3(27)	7584.008	2	3792.004	28.828**
Home Env X School Env		906.831	2	453.416	3.447*
Error		33279.229	253	131.538	
Total		4571799.000	260		
Corrected Total		51321.735	259		

\*\* $p < 0.01$ , \*  $p < 0.05$

(Key: Hom Env = Home Environment; School Env = School Environment; H1 = Good Home Environment; H2 = Moderate Home Environment; H3 = Poor Home Environment S1=Good School Environment; S2=Moderate School Environment; S3= Poor School Environment)

**Table 4.7** is the summary table of 3X3 ANOVA conducted to test the difference in resilience means scores in terms of home and school environment. The table presents number of participants in each of the three levels of home and school environment. There was a significant main effect of home environment on resilience,  $F(2,253) = 11.90$ ,  $p = < 0.01$ . Likewise the school environment also has a significant main effect on resilience,  $F(2,253) = 28.82$ ,  $p = < 0.01$ . The interaction effect of home and school environment on resilience was also significant indicating that both the contexts have a joint effect in determining resilience in adolescents. The interaction effect is graphically presented in Figure 1.

**Figure 1: Interaction Effect of Home and School Environments on Resilience**

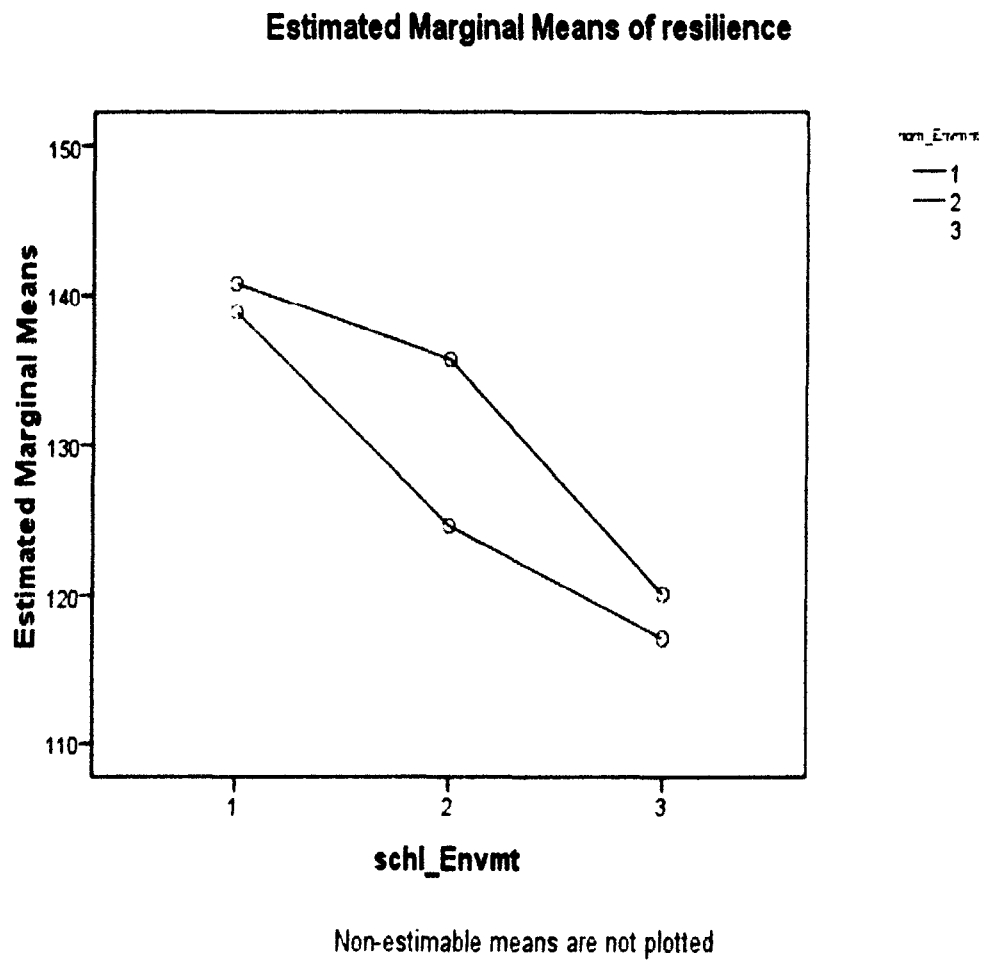


Figure 1 is a graphical presentation of the interaction effect of home and school, environment on resilience. The above graph shows a significant interaction effect of both these environments on resilience.

**Table 4.8 Effect of Home and School Environments on Resilience in Boys  
(N= 130): 3 X 3 ANOVA**

Source	Levels (N)	Sum of Squares	df	Mean Square	F
Hom_env	H1(75);H2(49);H3(6)	1762.961	2	881.480	9.612**
Schl_env	S1(42);S2(76);S3(12)	2438.055	2	1219.027	13.292**
Hom_env X Schl_env		281.360	2	140.680	1.534
Error		11280.402	123	91.711	
Total		2291283.000	130		
Corrected Total		20086.931	129		

\*\* $p < 0.01$ , \* $p < 0.05$

(Key: Hom Env = Home Environment; School Env = School Environment; H1 = Good Home Environment; H2 = Moderate Home Environment; H3 = Poor Home Environment S1=Good School Environment; S2=Moderate School Environment; S3= Poor School Environment)

**Table 4.8** is the summary table of 3X3 ANOVA done to test the difference in resilience means scores in terms of home and school environment in case of boys. The table presents number of adolescent boys in each of the three levels of home and school environment. There is a significant main effect of home environment on resilience in the case of boys  $F(2,123) = 9.61$ ,  $p = < 0.01$ . school environment is also found to have a significant main effect o resilience among boys  $F(2,123) = 13.29$ ,  $p = < 0.01$ . The interaction effect of both home and school environment on resilience in case of boys is not found to be significant. This indicates that while both individually have strong influence on resilience level of boys, their aggregated effect on resilience in boys is not significant.

**Table 4.9 Effect of Home and School Environments on Resilience among Girls (N= 130): 3 X 3 ANOVA**

Source	Levels (N)	Sum of Squares	df	Mean Square	F
Home Env	H1(84);H2(45);H3(1)	2647.740	2	1323.870	7.892**
School Env	S1(36);S2(79);S3(15)	4682.103	2	2341.051	13.955**
Hom Env X Schl Env		619.758	2	309.879	1.847
Error		20634.038	123	167.756	
Total		2280516.00	130		
Corrected Total		31208.308	129		

\*\*  $p < 0.01$ ; \*  $p < 0.05$

(Key: Hom Env = Home Environment; School Env = School Environment; H1 = Good Home Environment; H2 = Moderate Home Environment; H3 = Poor Home Environment S1=Good School Environment; S2=Moderate School Environment; S3= Poor School Environment)

**Table 4.9** shows the effects of home environment and school environment on resilience in the case of girls. This table also presents the number of adolescent girls in each of the three levels of home and school environment. In their case also the home environment's main effect on resilience is significant  $F(2,123) = 7.89, p = < 0.01$ . School environment as shown in the table, has significant main effect on resilience among adolescent girls  $F(2,123) = 13.95, p = < 0.01$ . The interaction effect of both home and school environment on resilience in case of girls is also not found to be significant. This indicates that while home and school environment have individual strong effects on resilience, jointly their effect on resilience among adolescent girls is not significant.

**Table 4.10 Gabriel Post Hoc Analyses (N= 260)**

Mean Differences of Resilience across levels of HE (I-J)	Resilience across HE levels in decreasing order	Mean Differences of Resilience across levels of SE (I-J)	Resilience across SE levels in decreasing order
Good HE (I)- Mod HE (J) =11.00 *	1	Good SE (I)- Mod SE (J)= 10.61*	1
Good HE (I)- Poor HE(J) =24.34 *		Good SE (I)- Poor SE (J)= 21.90*	
Mod HE (I) - Good HE (J) = -11.00*	2	Mod SE (I) – Good SE (J)= -10.61*	2
Mod HE (I) - Poor HE (J) = 13.34		Mod SE (I)- Poor SE (J) =11.28 *	
Poor HE (I) - Good HE (J) = - 24.34*	3	Poor SE (I) – Good SE (J) = - 21.90*	3
Poor HE (I)- Good HE (J)= - 13.34		Poor SE (I)- Mod SE (J)= -11.28*	

\* $p < 0.05$

(Key: HE = Home Environment; SE = School Environment)

**Table 4.10** shows results of Gabriel post hoc analysis, which was mainly used because the groups were not equal in size. The table depicts the extent of mean differences in resilience across the different levels of home and school environment. On account of the mean differences shown in the table resilience scores are the highest in good home and school environment than in other levels.

**Table 4.11 Gabriel Post Hoc Analyses (Boys) (N= 130)**

Mean Differences of Resilience across levels of HE (I-J)	Resilience across HE levels in decreasing order	Mean Differences of Resilience across levels of SE (I-J)	Resilience across SE levels in decreasing order
Good HE (I)– Mod HE (J) = 12.8846*	1	Good SE (I)– Mod SE (J) = 10.1980*	1
Good HE (I)- Poor HE (J) = 20.6533*		Good SE (I)- Poor SE (J) = 21.4524*	
Mod HE (I) – Good HE (J) = -12.8846*	2	Mod SE (I)– Good SE (J) = -10.1980*	2
Mod HE (I) – Poor HE (J) = 7.7687		Mod SE (I)– Poor SE (J) = 11.2544*	
Poor HE (I) – Good HE (J) = -20.6533*	3	Poor SE (I) – Good SE (J) = -21.4524*	3
Poor HE (I)– Good HE (J) = -7.7687		Poor SE (I) – Good SE (J) = -11.2544*	

\* $p < 0.05$ ;

(Key :HE = Home Environment; SE = School Environment)

**Table 4.11** shows results of Gabriel post hoc analysis. The table depicts the extent of mean differences in resilience across the different levels of home and school environment in the case of boys. On account of the mean differences shown in the table resilience scores for the boys are the highest in good home and school environment than in other levels.



**Table 4.12 Gabriel Post Hoc Analyses for resilience in School Environment  
(Girls) (N=130)**

Mean Differences of Resilience across levels of SE (I-J)	Resilience across SE levels in decreasing order
Good SE (I) – Mod SE (J)=11.08 *	1
Good SE (I)- Poor SE (J) =22.39 *	
Mod SE (I)– Good SE (J)= -11.08*	2
Mod SE (I) – Poor SE (J)=11.30*	
Poor SE (I) – Good SE (J)= -22.39*	3
Poor SE (I) – Good SE (J)= -11.30*	

\* $p < 0.05$

(Key: SE = School Environment)

**Table 4.12** shows the Gabriel post hoc analysis. The table depicts the extent of mean differences in resilience across the different levels of school environment in the case of girls. Resilience scores for the girls are the highest in good school environment than in other levels on account of the mean differences shown in the table.

**Table 4.13 Significance of Difference in Resilience Means between Good and Moderate Home Environment among Girls: Independent Sample t tests**

	Home Env	N	Mean	S.D	df	t
Resilience	Good	84	135.15	14.906	127	3.48**
	Moderate	45	125.91	13.220		

\*\* $p < 0.01$

NOTE: Post hoc analysis for resilience means in home environment was not done as only one participant belonged to the poor home environment category. Therefore independent sample t test is conducted to see the mean difference in the resilience between good and moderate home environment among girls.

**Table 4.13** presents the result of independent sample t test which reports highly significant difference in resilience between good and moderate home environment in case of girls,  $t(34) = 3.48$ ,  $p < 0.01$ . The result also highlights that girls coming from mostly better home environments were highly resilient.

Table 4.14 Inter-correlations between Resilience, Home Environment & School Environment.

	1	1a	1b	1c	1d	1e	2	2a	2b	2c	3	3a	3b	3c
1. Resilience	1													
1a. Meaningfulness	0.70**	1												
1b. Equanimity	0.70**	0.30**	1											
1c. Self Reliance	0.72**	0.34**	0.28**	1										
1d. Perseverance	0.64**	0.29**	0.38**	0.40**	1									
1e. Ext. Aloneness	0.64**	0.41**	0.25**	0.42**	0.33**	1								
2. Home Env.	0.50**	0.34**	0.26**	0.45**	0.35**	0.30**	1							
2a. Home-Care	0.37**	0.27**	0.20**	0.34**	0.27**	0.19**	0.85**	1						
2b. Home-High Exp	0.40**	0.27**	0.21**	0.39**	0.28**	0.23**	0.82**	0.61**	1					
2c. Home-MP	0.44**	0.30**	0.22**	0.37**	0.32**	0.32**	0.77**	0.44**	0.42**	1				
3. School Env.	0.52**	0.34**	0.33**	0.46**	0.29**	0.36**	0.37**	0.24**	0.33**	0.33**	1			
3a. School Care	0.34**	0.19**	0.18**	0.32**	0.22**	0.28**	0.24**	0.16**	0.22**	0.21**	0.82**	1		
3b. School High Exp	0.43**	0.23**	0.29**	0.39**	0.29**	0.27**	0.33**	0.22**	0.31**	0.28**	0.84**	0.65**	1	
3c. School MP	0.43**	0.36**	0.28**	0.34**	0.15*	0.27**	0.27**	0.17**	0.23**	0.27**	0.60**	0.20**	0.23**	1

\*\* $p < 0.01$ ; \* $p < 0.05$

(Key: Dimensions of Resilience = Meaningfulness, Equanimity, Self-Reliance and perseverance and Ext. Aloneness=Existential Aloneness; Home Env = Home Environment; Home Care= Caring Relationships at Home; Home Exp = High Expectations at Home; Home MP= Meaningful Participation at Home; School Env = School Environment; School Care= Caring Relationships in School; School High Exp= High Expectations in School; School MP= Meaningful participations in school.)

**Table 4.14** shows Pearson product moment correlation between overall resilience, its sub-dimensions, home environment and school environment with their sub-dimensions. According to the correlation matrix shown above all the variable are significantly and positively correlated with each other. This implies that better the home and school environment, higher the level of resilience of adolescents.

Table 4.15 Inter-correlations between Resilience, Home Environment & School Environment among Boys (N=130).

	I	Ia	Ib	Ic	Id	Ie	2	2a	2b	2c	3	3a	3b	3c
1. Resilience	1													
1a. Meaningfulness	0.66**	1												
1b. Equanimity	0.67**	0.22*	1											
1c. Self Reliance	0.68**	0.27**	0.23**	1										
1d. Perseverance	0.59**	0.23**	0.27**	0.33**	1									
1e. Ext. Aloneness	0.63**	0.38**	0.24**	0.33**	0.32**	1								
2. Home Env.	0.59**	0.42**	0.28**	0.45**	0.41**	0.42**	1							
2a. Home-Care	0.51**	0.36**	0.28**	0.35**	0.39**	0.32**	0.87**	1						
2b. Home-High Exp	0.51**	0.38**	0.27**	0.39**	0.30**	0.32**	0.82**	0.67**	1					
2c. Home-MP	0.44**	0.29**	0.15	0.36**	0.31**	0.40**	0.77**	0.49**	0.39**	1				
3. School Env.	0.52**	0.32**	0.29**	0.42**	0.25**	0.40**	0.45**	0.34**	0.40**	0.36**	1			
3a. School Care	0.35**	0.20*	0.07	0.37**	0.18*	0.37**	0.35**	0.27**	0.32**	0.28**	0.80**	1		
3b. School High Exp	0.41**	0.18*	0.25**	0.38**	0.25**	0.29**	0.36**	0.25**	0.32**	0.31**	0.86**	0.67**	1	
3c. School MP	0.35**	0.34**	0.31**	0.14	0.08	0.19*	0.25**	0.21*	0.22**	0.18*	0.47**	0.00	0.10	1

\*\* $p < 0.01$ ; \* $p < 0.05$

(Key: Dimensions of Resilience = Meaningfulness, Equanimity, Self-Reliance and perseverance and Ext. Aloneness = Existential Aloneness; Home Env = Home Environment; Home Care = Caring Relationships at Home; Home Exp = High Expectations at Home; Home MP = Meaningful Participation at Home; School Env = School Environment; School Care = Caring Relationships in School; School High Exp = High Expectations in School; School MP = Meaningful participations in school.)

**Table 4.15** shows the Pearson product moment correlation between overall resilience, its sub-dimensions, home environment and school environment with their sub-dimensions in the case of boys. Most of the variables are significantly and positively correlated with each other, however equanimity was found to be weakly correlated with home meaningful participation ( $r = 0.15$ ,  $p > 0.01$ ) and school caring relationships ( $r = 0.07$ ;  $p > 0.01$ ). School meaningful participation was also found to have very low correlation with two dimension of resilience in boys i.e. self reliance ( $r = 0.14$ ,  $p > 0.01$ ), perseverance ( $r = 0.08$ ;  $p > 0.01$ ). It was also found to be unrelated with the other two dimensions of school environment i.e. school care ( $r = 0.00$ ;  $p > 0.01$ ) and with school high expectations ( $r = 0.01$ ;  $p > 0.01$ ).

Table 4.16 Inter-correlations between Resilience, Home Environment & School Environment among Girls (N=130).

	1	1a	1b	1c	1d	1e	2	2a	2b	2c	3	3a	3b	3c
1. Resilience	1													
1a. Meaningfulness	0.73**	1												
1b. Equanimity	0.72**	0.36**	1											
1c. Self Reliance	0.75**	0.39**	0.32**	1										
1d. Perseverance	0.69**	0.33**	0.47**	0.46**	1									
1e. Ext. Aloneness	0.65**	0.43**	0.26**	0.49**	0.33**	1								
2. Home Env.	0.44**	0.28**	0.25**	0.47**	0.30**	0.20*	1							
2a. Home-Care	0.27**	0.19*	0.14	0.33**	0.16	0.09	0.83**	1						
2b. Home-High Exp	0.33**	0.16	0.16	0.42**	0.25**	0.16	0.80**	0.55**	1					
2c. Home-MP	0.46**	0.32**	0.32**	0.39**	0.33**	0.26**	0.75**	0.38**	0.45**	1				
3. School Env.	0.53**	0.35**	0.35**	0.49**	0.33**	0.33**	0.31**	0.16	0.28**	0.31**	1			
3a. School Care	0.34**	0.18*	0.18*	0.29**	0.21*	0.21*	0.13	0.06*	0.12	0.14	0.85**	1		
3b. School High Exp	0.46**	0.29**	0.29**	0.41**	0.26**	0.26**	0.29**	0.19*	0.29**	0.23**	0.84**	0.63**	1	
3c. School MP	0.49**	0.38**	0.38**	0.50**	0.34**	0.34**	0.32**	0.14	0.26**	0.39**	0.71**	0.38**	0.38**	1

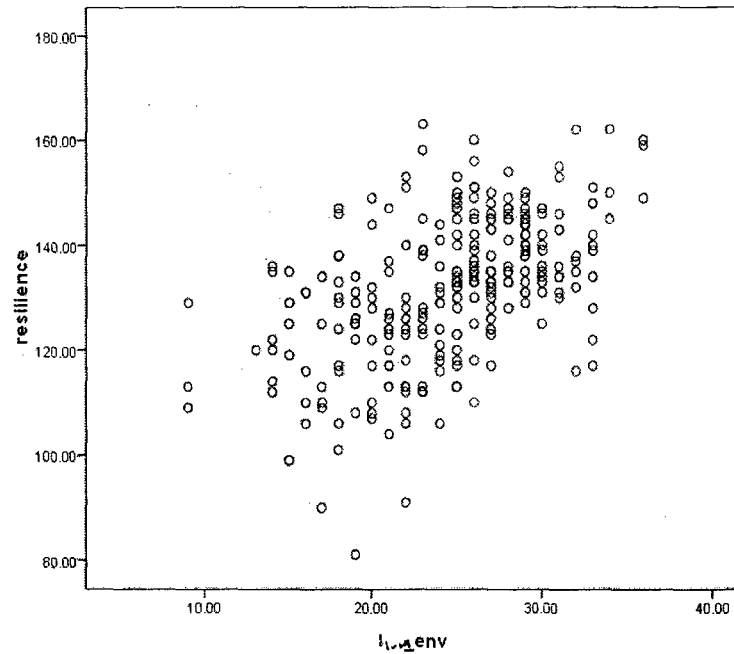
\*\* $p < 0.01$ ; \* $p < 0.05$

(Key: Dimensions of Resilience = Meaningfulness, Equanimity, Self-Reliance and perseverance and Ext. Aloneness = Existential Aloneness; Home Env = Home Environment; Home Care = Caring Relationships at Home; Home Exp = High Expectations at Home; Home MP = Meaningful Participation at Home; School Env = School Environment; School Care = Caring Relationships in School; School High Exp = High Expectations in School; School MP = Meaningful participations in school.)

**Table 4.16** shows the Pearson product moment correlation between overall resilience, its sub-dimensions, home environment and school environment with their sub-dimensions in the case of girls. According to the table shown equanimity has been found to be uncorrelated with home caring relationships ( $r=0.14$ ;  $p>0.01$ ) and home high expectations ( $r=0.16$ ;  $p>0.01$ ). Home caring relationships and home high expectations have also been found to have no correlation with existential aloneness ( $r=0.09$ ;  $p>0.01$ ;  $r=0.16$ ;  $p>0.01$ ). Rest of the variables is found to be significantly correlated with each other.



**Scatter plot: Correlation between  
Resilience & Home Environment**



**Figure 2**

**Figures 2 is a scatter plot displaying positive linear relationship of resilience with home environment for the total sample in this study.**

Scatterplot: Correlation between  
Resilience & School Environment

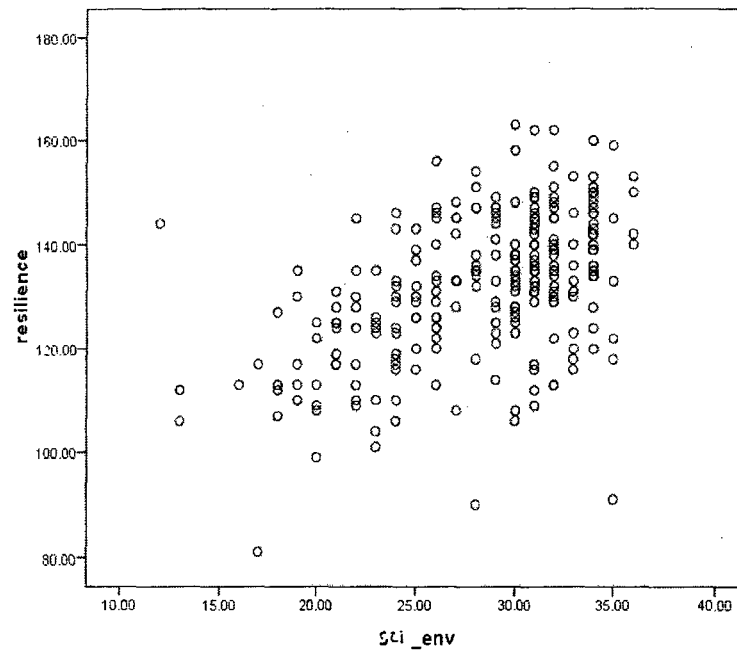


Figure 3

Figures 3 is a scatter plot displaying positive linear relationship of resilience with school environment for the total sample in this study.

**Table 4.17 Stepwise Multiple Linear Regressions: Predicting Resilience from Overall Home and School Environments (N=260)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	98.026	3.475				99.340**	28.210**
	School Env	1.382	.139	.527	.278	.278		9.967**
2	(Constant)	78.961	4.296				80.442**	18.381**
	School Env	1.035	.138	.395				7.485**
	Home Env	.976	.146	.353	.380	.102		6.687**

\*\*  $p < 0.01$

(Key: School Env = School Environment; Home Env = Home Environment)

**Table 4.17** presents the results of stepwise multiple regression in order to predict resilience for the total sample participants from overall home and school environment. The above table shows both home and school environment particularly the latter to significantly and positively predict resilience among all the participants. School environment which entered the first step alone accounted for 27% of the variance in total resilience scores and came out to be the strongest predictor variable ( $\beta = 0.39$ ,  $p < .01$ ) as compared to the home environment, which accounted for only 10% of the variance of the total resilience score. However home environment was also found to significantly predict resilience ( $\beta = 0.35$ ,  $p < .01$ ).

**Table 4.18 Stepwise Multiple Linear Regression: Predicting Resilience from Overall Home and School Environments in case of Boys (N= 130)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	94.187	4.568				71.81**	20.617**
	Home Env	1.378	.163	.599	.359	.359		8.474**
2	(Constant)	84.296	4.902				49.37**	17.197**
	Hom Env	1.053	.171	.458				6.141**
	School Env	.769	.183	.313	.429	.007		4.197**

\*\*  $p < 0.01$

(Key : Hom Env = Home Environment; School Env = School Environment)

**Table 4.18** presents the results of stepwise multiple regression in order to predict resilience for male participants from their overall home and school environment. The above table shows that both home and school environment particularly home environment of the boys significantly and positively predicted resilience. Home environment, which entered the first step of regression, is the most significant predictor ( $\beta = 0.45$ ,  $p < .01$ ) and accounted for approximately 36% of the variance in the resilience scores for boys.

**Table 4.19 Stepwise Multiple Linear Regressions: Predicting Resilience from Overall Home and School Environments in case of Girls (N= 130)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	95.703	5.148				51.03**	18.589**
	School Env	1.465	.205	.534	.285	.285		7.144**
2	(Constant)	72.627	7.430				37.09**	9.775**
	School Env	1.206	.204	.440				5.927**
	Home Env	1.017	.248	.304	.369	.083		4.104**

\*\*  $p < 0.01$

(Key : Hom Env = Home Environment; School Env = School Environment)

**Table 4.19** presents the results of stepwise multiple regression in order to predict resilience for female participants from their overall home and school environment. The above table shows that both home and school environment particularly school environment to significantly and positively predict resilience in case of girls ( $\beta = 0.44$ ,  $p < .01$ )

**Table 4.20 Stepwise Multiple Linear Regression: Predicting Resilience from Dimensions of Home and School Environment (N=260)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	104.406	3.288				62.631**	32.411**
	Hom MP	2.959	.368	.442	.195	.195		7.914**
2	(Constant)	96.384	3.534				55.359**	27.069**
	Hom_MP	2.517	.358	.347				6.379**
	Scl_HighExp	1.451	.310	.339	.301	.106		6.236**
3	(Constant)	88.190	3.700				51.018**	23.538**
	Hom_MP	2.241	.348	.283				5.358**
	Scl_HighExp	1.388	.299	.289				5.532**
	Scl_MP	1.415	.339	.285	.374	.073		5.467**
4	(Constant)	85.143	4.017				41.981**	20.364**
	Hom MP	1.524	.373	.214				3.789**
	Scl_HighExp	1.234	.296	.272				5.248**
	Scl_MP	1.324	.334	.279				5.424**
	Hom_Care	1.217	.350	.170	.397	.023		3.111**

\*\* $p < 0.01$ ; \* $p < 0.05$

(Key: Hom MP = Home Meaningful Participation; Schl High Exp= School High Expectation; Schl MP= School Meaningful Participation; Home Care= Home Caring Relationships)

**Table 4.20** presents the results of stepwise multiple regressions in order to predict resilience for the total sample participants from the dimensions of home and school environment. The above table shows that home meaningful participation; school high expectations school meaningful participations and home caring relationships significantly and positively predicted resilience. Meaningful participation at home entered the first step and emerged to be the most significant predictor of resilience ( $\beta = 0.21$ ,  $p < .01$ ) for the total sample accounting 19.5% of the total variance in the resilience. In the second step High Expectations in School was the second important

predictor of resilience ( $\beta = 0.33$ ,  $p < .01$ ). In the third step Meaningful participation in school was the third important and significant predictor of resilience ( $\beta = 0.28$ ,  $p < .01$ ). In the fourth and final step Caring Relationships at home was the fourth important predictor of resilience ( $\beta = 0.17$ ,  $p < .01$ ). The rest of variables could not enter in regression equation because they could not satisfy the criterion of entrance.

**Table 4.21 Stepwise Multiple Linear Regression: Predicting Resilience from Dimensions of Home and School Environment in case of Boys (N= 130)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	106.584	4.155				47.074**	25.126**
	Hom_Care	2.915	.431	.519	.269	.269		6.861**
2	(Constant)	95.672	4.379				34.889**	22.010**
	Hom_Care	2.286	.421	.441				5.982**
	Scl_HighExp	1.935	.353	.303	.355	.086		4.107**
3	(Constant)	87.094	4.847				29.066**	18.197**
	Hom_Care	1.867	.412	.393				5.434**
	Scl_HighExp	1.652	.340	.290				4.081**
	Scl_MP	1.854	.416	.239	.409	.054		3.406**
4	(Constant)	81.802	4.975				23.645**	17.114**
	Hom_Care	1.412	.522	.267				2.917**
	Scl_HighExp	1.551	.342	.257				3.604**
	Scl_MP	1.811	.412	.224				3.215**
	Hom_HighExp	1.087	.557	.204	.431	.022		2.184*
5	(Constant)	83.385	4.990				20.215**	16.712**
	Hom_Care	1.163	.546	.204				2.131*
	Scl_HighExp	1.086	.346	.227				3.141**
	Scl_MP	1.263	.408	.214				3.099**
	Hom_HighExp	1.169	.551	.197				2.124*
	Hom_MP	.863	.425	.160	.449	.018		2.032*

\*\*  $p < 0.01$ ; \*  $p < 0.05$

(Key: Hom Care= Home Caring Relationships; Scl High Exp = School High Expectations; Scl MP = School Meaningful Participation; Hom High Exp = Home High Expectations; Hom MP = Home Meaningful Participation.)

**Table 4.21** presents the result of stepwise multiple regression in order to predict resilience among boys from the dimensions of home and school environment. The above table shows that home caring relationships, school high expectations, school meaningful participation, home high expectations and home meaningful participations significantly and positively predicted resilience in case of the boys as they satisfied the



criterion of entrance. In the first step caring relationships at home entered as the most important predictor ( $\beta=0.51$ ;  $p<0.01$ ) accounting for 26% of variance in resilience followed by high expectations in school, which emerged as the second important predictor of resilience ( $\beta =0.30$ ;  $p<0.01$ ). Meaningful participation in school entered as the next important predictor of resilience ( $\beta = 0.23$ ;  $p<0.01$ ). The last two significant predictors of resilience in boys as shown by table 4.21 are high expectations at home ( $\beta =0.20$ ;  $p<0.01$ ) and meaningful participation at home ( $\beta = 0.16$ ;  $p<0.01$ ).

**Table 4.22 Stepwise Multiple Linear Regression: Predicting Resilience from Dimensions of Home and School Environment in case of Girls (N=130)**

Model	Unstandardized coefficients			Standardized coefficients	R <sup>2</sup>	R <sup>2</sup> (change)	F	t
		B	S.E	Beta				
1	(Constant)	104.951	4.353				40.345**	24.111**
	Schl MP	3.429	.540	.490	.240	.240		6.352**
2	(Constant)	92.928	4.989				31.698**	18.627**
	Schl MP	2.551	.549	.364				4.650*
	Scl_HighExp	2.207	.524	.330	.322	.082		4.215**
3	(Constant)	79.433	5.895				28.363**	13.475**
	Schl MP	1.826	.554	.261				3.296**
	Scl_HighExp	2.021	.500	.302				4.044**
	Hom MP	2.339	.608	.289	.389	.067		3.848**

\*\*  $p < 0.01$

(Key: Schl MP = School Meaningful Participation; Schl High Exp = School High Expectation; Hom MP = Home Meaningful Participation)

**Table 4.22** presents the results of stepwise multiple regression in order to predict resilience among girls from the dimensions of home and school environment. The above table shows that school meaningful participation, school high expectations and meaningful participations at home entered the regression analysis. The results indicate that these variables significantly and positively predicted resilience in case of the girls as per the order of predictors' entry shown in Table 4.22. The rest of the dimensions could not fit the entrance criteria. On the whole Meaningful participation at home and school emerged to be the dominant source of resilience among adolescent girls in this study. However it was meaningful participation in the school, which was the more significant predictor of resilience among adolescent girls accounting alone for 24% of variance in resilience ( $\beta=0.49$ ;  $p<0.01$ ).

**CHAPTER FIVE**

**DISCUSSION**

## DISCUSSION

The present study contributes to the psychological literature by examining variables hypothesized to serve as protective factors that predict resilience among adolescence in Aligarh, India. Specifically, the present study investigated the relationships among resilience, home environment, school environment and certain demographic variable. In this chapter, the results of the study are discussed in relation to previous literature on adolescent resilience. First, the findings from analyses including the chi-square, ANOVA, multiple regression and intercorrelations are discussed. Second, conclusions with implications are addressed and lastly limitations and recommendations for future researches are presented.

### 5.1 Discussion of the results

In order to examine whether resilience differs with respect to gender, chi-square test was conducted (see Table 3.4.1). The chi square value obtained was not significant, which implies that there is no significant difference in resilience between boys and girls. Although prior research findings have revealed significant gender differences in resilience, they have not been conclusive of whether resilience is higher among boys or girls. While some studies show adolescent girls to be more resilient (Hampel & Petermann, 2005; Milgrim & Palti, 1993), other studies have proved boys with high resilience in comparison (Ge, Lorenz, Conger, Elder, & Simons, 1994). A recent Indian study by Deb & Arora in 2007 revealed that adolescent boys were more resilient to adversity than the girls. However in the present study there was not much difference in resilience scores between the two gender groups, which is in contrast to available research evidence. Lack of gender difference in resilience level in this research may be a reflection of the new changing Indian society with new parenting norms and other cultural values. Gender biases and other forms of discrimination are slowly being

replaced by provisions of equal opportunities to both boys and girls. Adolescent boys and girls today receive similar support from their social environmental conditions, thus the old myth that girls are more vulnerable and lesser resilient than the boys is being eroded since adolescent boys are as much resilient (or vulnerable) to stressors as their female counterparts.

Chi-square was conducted to examine difference in resilience between adolescents coming from joint and nuclear families .Table 3.5.1 depicts that resilience did not significantly vary between the two family types. This finding throws light on the cultural transformation, which our traditional society is going through. Amongst the several transformations in recent times, the most striking one is the breakdown of Indian joint family system into several nuclear families (Nagaswami, 2008). Moreover, the belief that adolescents have better mental health in joint families than in nuclear families is not acceptable due to increasing similarities in the psychosocial functioning of both the family systems. The finding obtained can be considered as a result of the similar psychosocial environment provided by both the family types.

In order to examine whether resilience differs across the three socio economic groups (low, moderate, high) chi-square test was conducted (see Table 3.6.1).The result shown in table reveals that resilience did not differ significantly with respect to the socio economic backgrounds of the adolescents, indicating that socio economic status does not necessarily affect resilience in this population. This finding however is different from the available research evidence that have shown this construct to be higher among adolescents coming from sound socio-economic background than those coming from the lower stratum (Masten, 2001; WestEd, 2002; Garnezy, 1983; Rutter, 1988).The present results highlight that the level of adolescent's resilience is more or less the same across the three socio economic groups. It can be concluded from the

present result that resilience in adolescents is not necessarily related with their socio economic status in the current Indian context.

On the whole, it can be concluded that there is no significant relationship between the three demographic variables i.e. Gender, Family type and Socio-economic status, investigated in the present study with resilience in adolescents.

ANOVA test was conducted to see the difference in resilience scores with respect to home and school environment. Difference in resilience means scores were also seen across three levels i.e. good, moderate and low classifications of the two measures (i.e. home and school scales) based on their norms. Table 3.7 depicts the proportions of participants in each level of home and school environment. Majority of participants had good home environment (N=159), followed by moderate home environment (N=94). Only 7 respondents were in poor home environment category. In case of school environment, majority of participants (N=155) reported to have come from moderate school environment, followed by good (N=78) and poor (N=27) school environment. This implies that for the current study the sample participants mostly perceived to receive a combination of overall good home environment and moderate school environment. It is evident from Table 3.7 that home environment has a significant main effect on resilience. It is also clear from the results obtained that resilience is significantly differing across three levels of home environment for the total sample.

Since *F* value has been found to be significant in the case of home environment, Gabriel's post hoc analysis was conducted to see the extent of mean differences in resilience across different levels of home environment (see Table 3.10). Gabriel's post hoc results indicate that the resilience scores were highest for level one, followed by level two and then level. All the mean differences were significant except for resilience

between moderate and poor home environment levels. From these results it can be concluded that resilience is highest in good home environment, moderate in the moderate level and lowest in the poor environment category which is in accordance with previous studies where adolescence from healthy home environments are found to be more resilient than those coming from unfavorable home conditions (Werner & Smith 1982; Garmezy, 1983; Demos, 1989; mills, 1990; Bennett, 1988; Clair and Genest, 1987).

ANOVA results in table 3.7 also show significant main effect of school environment on resilience in the total sample. It is therefore clear that resilience also significantly differs across the three levels of school environment as well. Mean difference in resilience scores for three school categories were examined through Gabriel's post hoc analysis (see Table 3.10). On account of mean differences in resilience, it can be concluded that resilience scores significantly varied in decreasing order in good, moderate and poor school categories respectively. This finding is also in favor of prior studies where schools with abundant protective factors served as important source of resilience for the adolescents (Garmezy, 1991; Werner, 1990).

ANOVA results for the overall sample (Table 3.7) are similar as both the environments emerged to have significant effects on resilience, thus underlining that both the contexts are major protective storehouses of adolescent resilience in the Indian context as well. Table 3.7 also shows the interaction effect of home and school environment on resilience. The results indicate a significant interaction effect of these variables on resilience, which means that the development of resilience among adolescents is certain if they get to live and spend time in favorable home and school conditions (Benard, 1991; Werner & Smith, 1982). The interaction effect is displayed graphically in figure 1.

ANOVA tests were further conducted to investigate the effects of home and school environment on resilience in girls and boys separately. In case of both the gender groups, significant main effects of both the variables on resilience were obtained. However interaction effect of home and school environments on resilience was not significant for this demographic variable. The two post hoc results for boys and girls are similar to that of overall sample. See table 3.11 for boys and 3.12 for girls.

The main research question raised in this study was to see whether a relationship exists between home environment, school environment and resilience. To answer this question Pearson Product-moment correlations were computed to examine correlations between overall resilience, home and school environments. The  $r$  values presented in Table 3.14 show a positive significant relationship between home environment and resilience ( $r=.50$  at  $p<.01$ ). There was also a positive significant correlation between school environment and resilience ( $r=.52$  at  $p<.01$ ). Scatter plots graphically display the positively linear relationship between the three variables (see Figure 2 and 3).

Correlations were also computed among dimensions of home environment, school environment and overall resilience. It was found that all the dimensions of these environment scales share a significant positive relationship with each other. The trend of relationship obtained between resilience and the two extrinsic protective environments are consistent with previous literature, which documents that chances of adolescents displaying resilience traits are higher if they live in positively protective homes and schools (Werner & Smith, 1982, Cairns & Dawes, 1996, Garmezy, 1983; West Ed, 2002). A positive home environment meets the three basic needs of the adolescents, namely caring relationships (Egeland et al, 1993), high expectations (Steinberg, 2000) and meaningful participation (Steinberg, 2000), and thus, plays a



very crucial role in the development of resilience in adolescents (Benard, 1991). The relationship between a positive school environment and resiliency development has also been documented by Benard in great detail (Benard, 1991). Since the dimensions of home and school environment are positively and significantly correlated with resilience, inference can be drawn that adolescents will be more resilient to life stressors when they feel adequately supported by their family members and school teachers. Correlations between the three above-mentioned variables in the case of boys and girls were also analyzed separately. The results for boys and girls are presented in Table 3.15 and Table 3.16 respectively. Linear positive correlations were also obtained for both the gender groups emphasizing that better the home and school environment, higher will be their resilience. For boys, the results show that there is a significant positive correlation between their overall home environment scores and resilience and also between overall school environment and resilience. For girls the result is similar as in the case of boys. Correlations between home environment and resilience and school environment and resilience have been found to be positively significant.

It was further revealed by Table 3.15 for boys, that Equanimity was not correlated with meaningful participation at home and caring relationships in school. Self-reliance and perseverance in boys were also not correlated with meaningful participation in school. The rest of the r-values were significantly positive indicating that higher these protective factors in school and home, higher is the resilience among adolescent boys. In case of girls (see Table 3.16) resilience dimension of equanimity was not correlated with high expectations and caring relationships at home. Caring Relationships at home was also found to be weakly associated with the dimension of perseverance in adolescent girls. Aloneness was also found unrelated with caring relationships and high expectations at home for girls. However the other dimensions of

resilience were strongly and positively correlated with the other home and school dimensions.

Although the correlation values highlight the pattern of relationships between resilience and home and school environment, it cannot be concluded whether or not resilience is well predicted by the environmental factors used in this study. In order to find out the predictive nature of home environment and school environment (predictor variables) in the context of resilience (criterion variable), step-wise multiple regression analyses were done. It also provided a good indication of the relative importance of one predictor variable vis-à-vis the other one. The results are presented in Table 3.17. The results of the step wise multiple regression revealed that, for the total sample participants, both home and school environment are predictive of resilience in adolescents. These predictor variables, together, accounted for 38% of the variance in adolescents' resilience scores. Results further revealed that school environment alone accounted for 27% of the variance in total resilience scores and came out to be the strongest predictor variable as compared to the home environment, which accounted for only 10% of the variance of the total resilience score and thus reiterates the role of school in determining resilience in this population as shown in several research studies (Austin, 1991; Brook et al, 1989; Cauce and Srebnik, 1990; Rutter, 1984; Rutter, 1979; Berrueta-Clement et al, 1984; Coleman and Hoffer, 1987; Comer, 1984; Nelson, 1984). Significant role of the school in predicting resilience is also confirmed through the standardized coefficient. Research reveals that adolescent students are more likely to thrive in schools that provide them with responsible roles, clear and high academic standards, resources, and opportunities to participate in a variety of extracurricular activities (Benard, 1991; Henderson & Milstein, 1996; Rutter, 1984; Werner, 1989). Safyer (1994) and Hauser (1999) identified participation and achievement with school

as a source of resiliency. Benard (1991) further suggested that the critical factor in developing resiliency in youth is participation and active involvement in decision-making, dialogue, and empathy in the school environment.

Home environment, in the present study, has also been found to have significantly predicted resilience for the total sample. Although this finding is consistent with findings that show positive home environment as a protective factor of resilience (Werner & Smith, 1982, Rutter, 1987, Garnezy, 1985), in the present study the contribution of home environment was relatively small (i.e 10.2%) in comparison to school environment. This may be possibly because in the Indian society adolescents spend a major portion of their daily lives in schools(Rutter, 1979) and it is in schools that adolescents mostly build their social network, are under maximum peer pressure and engage in both curricular and co curricular activities to prove their caliber at home and outside. Schools thus serve as the second home for the school going youth in our country and play a major role in determining their overall mental health and well-being.

Step-wise multiple regression was further made use of to see which predictor variable significantly predicted resilience in the case of boys and girls separately. The results for boys and girls are presented in Table 3.18 girls in Table 3.19. In the case of boys and girls, both home and school environment significantly predicted resilience. However home environment is the most significant predictor and accounted for approximately 35% of the variance in the resilience scores for boys. On the other hand, school environment has been found to be the strongest predictor of resilience in girls and accounted for 28.5 % of the variance. Research has proved that boys tend to show more severe and prolonged family disturbances like parental discord and divorce than females (Chess, 1989) due to which their chances of suffering from psychiatric disorders are quite high. Such familial disturbances often create obstacle in the

provision of the protective factors further aggravating adolescent vulnerabilities. Hence it will not be wrong to say that they are more likely to draw benefit from a healthy home environment than females and this may be a reason why home environment in the present research has proved to be the stronger predictor of resilience in their case. Findings obtained in the case of girls are different from boys and are interesting. For girls, both school and home environment turned out to be significant predictors of resilience, but school environment is the stronger predictor of the two, a finding that is very relevant for the current changing Indian society. Today our society is undergoing change where lesser and lesser discrimination is seen between boys and girls in terms of education, academic performance and other academic related opportunities especially in urban middle class. Parents now, not only want to give their girl child a good education but have also started taking keen interest in their overall academic performance as well. This has resulted in better academic performance among girls than among boys in the recent times. Good school performance tends to increase beliefs regarding self-esteem and self-efficacy among girls, therefore helping them draw more resilience from this environment as also revealed by the current findings.

The above discussed results predicted resilience from overall home and school environment but not from their specific dimensions. Since caring relationship, high expectations and meaningful participation have been proved to be essential protective factors in both home and school context (Benard, 1991, 2004), this study also tried to explore the role of these three dimensions (predictor variables) in predicting resilience (criterion variable). Therefore, stepwise multiple regression analysis was done to specifically predict resilience from the dimensions of home and school environment. The results are presented in Table 3.20. The table shows that meaningful participation in home, high expectations in schools, meaningful participation in schools and caring

relationships in home have positively and significantly predicted resilience. Out of all these dimensions which were found to predict resilience significantly, meaningful participation in home proved to be the strongest predictor accounting 19.5% of the total variance in the resilience. Previous literature in the field of resilience has proved meaningful participation in family matters to have a significant relationship with resiliency development. Meaningful participation at home depends on the parents being able to provide adolescents with a good balance of both psychological control and autonomy (Benard, 2004) and in making them think beyond self-centric need fulfillment as pointed out by Cohn in *Raising Compassionate, Courageous Children in a Violent World* (Cohn, 1991). Parents who create opportunities for their adolescents' to have some decision making power and to solve problems on their own help meet their basic need for psychological autonomy, an important ingredient of meaningful participation and an important contributor in the development of resilience in adolescents (Benard, 1991, 2004; Eccles et.al. 1993). It must be mentioned that even though school environment on the whole may strongly determine adolescent resilience, extent of opportunities given to adolescents at home helps them carve out an identity of their own which they constantly keep struggling for in this phase of *identity crisis* (Erikson, 1960).

The next predictor that entered in the model as shown in Table 3.20 is the high expectations in schools, accounting for 10.6% of the variance in resilience, thus validating the role of this component of school environment in determining resilience among adolescents. There is no dearth of evidence that this component of school environment plays an important role in building adolescent resilience (Rutter, 1979; Judith Brook, 1989; Oakes, 1985, Jonathon Kozol, 1990, O'Neil, 1991, Benard, 1991, Weinstein et al., 1991 & Delpit, 1996) and the present finding is no different. The third

strongest predictor of resilience which accounted for 7% of the variance in resilience is meaningful participation in schools. The importance of meaningful participation as an important protective factor in schools has also been supported in the literature. Rutter's research (1979, 1984) on successful schools provided a significant proof of the importance of meaningful participation as a protective factor for the development of resilience in adolescents. He found that schools with low levels of problems had children "who were given a lot of responsibility and participated in all sorts of things that went on in the school. They were treated as responsible people and reacted accordingly". Research has found that students who experience autonomy-supportive school environment are more likely to be curious, mastery oriented, problem solvers in addition to having a higher sense of self efficacy (Barber & Olsen, 1997; Chirkov & Ryan, 2001; Deci, 1995), which helps them to become resilient to problems and other life stressors (Benard, 2004). Researches done by Brooks (1989) and Roger Mills (1990) have further validated Rutter's findings. Maton (1990) conducted a research on older adolescents and at-risk urban teenagers and found that their involvement in "meaningful activities" was significantly related to their life satisfaction, well-being, and overall self-esteem. The last predictor of resilience to make entry in the stepwise model is caring relationships in home accounting for only 2 % variance in resilience. Previous literature has supported the role of caring relationships in home to be an important predictor of resilience. Werner & Smith (1982) contended on the basis of a longitudinal study that, having a caring relationship with any adult in the home is the most powerful source of resilience in children and adolescents. Similar findings have also been obtained by researchers like Steinberg (2000), Barber & Olsen (1997), Anthony (1974), Rutter (1979) etc, where caring relationships in home environment

have been found to have a positive effect on the development of resilience in children and adolescents.

The results of school environment as an important source of resilience in girls and home environment being important in case of boys got further consolidated as the dimension, meaningful participation in schools and caring relationships at home emerged to be significant predictors of resilience in girls and boys respectively (see Table 3.21 for boys and 3.22 for girls). In the case of boys all dimensions of home and school environment predicted resilience except the one of caring relationships in school. Caring relationships at home proved to be the strongest predictor in their case and accounted for 26% of the variance in resilience.

It is very important to note that all the three dimensions of home environment significantly predicted resilience in adolescent boys. This finding highlights the importance of home environment as an important external protective factor of development of resilience in adolescent boys and is in accordance with the result in Table 3.18 where overall home environment significantly contributed to adolescent resilience.

Results obtained from step-wise multiple regression analysis done to predict resilience in girls from all the dimension of home and school environment underlines the importance of meaningful participation in schools as the strongest predictor of resilience in them, accounting for 24% of the total variance in resilience scores. High expectations in schools and meaningful participation in home are the other two dimensions that have significantly predicted resilience in them accounting for 8.2% and 6.7% of variance respectively. Table 3.22 indicates that meaningful participation of the adolescent girls is the *primary protective factor* that needs to be encouraged by elders at home and schools so as to increase their resilience.

## 5.2 Conclusions with Implication

In context of the above discussed current research findings it can be concluded that the research questions regarding relationship between home and school environments and resilience, were successfully addressed by the present study. On the basis of the obtained results it can be assumed that instead of the demographic characteristics like gender, family type or socio-economic background, it is the quality of home and school environment of the adolescents that is responsible for their resilience.

Since youth in India today mostly are prone to getting affected by risk factors around, there is a great need to enhance protective aspects of family and school environments. Home and school environment in their own rights contribute to the development of resilience in the Indian adolescents. Family in India is the primary social institution wherefrom one learns basic values and norms. The role of family becomes excessively important even during the phase of adolescence as well. It is during this phase that adolescents try to create a balance between parental expectations and their own expectations. Being involved in an 'identity crisis' as pointed by Erikson, (1968), the adolescents strive for independence and an identity of their own. Therefore, adequate family support particularly from elders is required so that they can successfully cope with stressors like board examinations, getting admission in their desired schools and colleges, dating relationships, etc. Improper parental behavior and disturbed family atmosphere may increase their vulnerabilities to emotional disorders and divergent behaviors like substance use, delinquency and suicide. It therefore is important for them to have a proper home environment conducive for building resilience.



School on the other hand is equally an important institution as it is responsible for further personality and cognitive development of children and adolescents. School life in adolescence can be considered as one of the most critical phases in one's life. Academic stress particularly in India is mostly experienced during the phase of adolescence. Hence, school authorities should make extra efforts in making the learning environment stress-free and in helping them develop positive coping strategies to handle stressors like examinations, career indecision, etc.

In a nutshell, this study emphasizes on enhancing those aspects of school and family that minimize risks of succumbing to adversity in this population.

### **5.3 Limitations and recommendations for future researches**

Why some of the dimensions of home and school environment failed to predict resilience has not been explained in the present research investigation and can be considered as one of its major limitations.

The current study due to its co-relational nature managed to present the relationship between resilience and the other proposed research variables. However the study did not focus on *how* resilience is predicted by demographic variables, conducive home and school environment. Researches on adolescent resilience in future should also examine the relationship between resilience and these protective and demographic variables in a pathway perspective.

As far as the school and home environment variables are concerned, only the psychological protective components (i.e. caring relationships, meaningful participation and high expectations) were under consideration. Studies in future should also address the role of 'physical aspects' of homes and schools (like location, sanitation, size, availability of facilities, etc), not considered by this study.

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# APPENDICES

## DEMOGRAPHIC SHEET

Name:

Age:

Gender:

Religion:

Name of the School:

Class:

Family Type : Joint/ Nuclear

Father's occupation:

Mother's Occupation : Housewife/Working

(If working, specify the occupation)

.....

Father's Education: Put a ✓ mark in the box next to any one of the 5 categories given below:

Less than 10 <sup>th</sup>		Upto 10 <sup>th</sup>		Upto 12 <sup>th</sup>		Graduate		Post-Graduate	
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Mother's Education: Put a ✓ mark in the box next to any one of the 5 categories given below:

Less than 10 <sup>th</sup>		Upto 10 <sup>th</sup>		Upto 12 <sup>th</sup>		Graduate		Post-Graduate	
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Monthly Income:

## RESILIENCE SCALE

This study is designed and to be used purely for research purposes. This survey is confidential, so please respond as honestly and frankly as you can.

Please read the following statements carefully. To the right of each statement you will find seven numbers, ranging from "1" (Strongly Disagree) to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

1. Strongly disagree STD    2. Disagree D    3. Slightly Disagree SD
4. Neutral N    5. Slightly Agree SA    6. Agree A    7. Strongly Agree STA

	STD	D	SD	N	SA	A	STA
1. When I make plans, I follow through with them.	1	2	3	4	5	6	7
2. I usually manage one way or another.	1	2	3	4	5	6	7
3. I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4. Keeping interested in things is important to me.	1	2	3	4	5	6	7
5. I can be on my own if I have to.	1	2	3	4	5	6	7
6. I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7. I usually take things in stride.	1	2	3	4	5	6	7
8. I am friends with myself.	1	2	3	4	5	6	7
9. I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10. I am determined.	1	2	3	4	5	6	7
11. I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12. I take things one day at a time	1	2	3	4	5	6	7
13. I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14. I have self-discipline.	1	2	3	4	5	6	7
15. I keep interested in things.	1	2	3	4	5	6	7
16. I can usually find something to laugh about.	1	2	3	4	5	6	7



1. Strongly disagree

STD

2. Disagree

D

3. Slightly Disagree

SD

4. Neutral

N

5. Slightly Agree

SA

6. Agree

A

7. Strongly Agree

STA

	STD	D	SD	N	SA	A	STA
17. My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18. In an emergency, I'm someone people can generally rely on	1	2	3	4	5	6	7
19. I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20. Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21. My life has meaning.	1	2	3	4	5	6	7
22. I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23. When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24. I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25. It's okay if there are people who don't like me.	1	2	3	4	5	6	7

## SCHOOL ENVIRONMENT SCALE

Please read the following statements carefully & circle how true you feel the statements are about your SCHOOL and things you might do there.

- At my school, there is a teacher or some other adult...

	Not at All True	A Little True	Pretty Much True	Very Much True
1. Who really cares about me	A	B	C	D
2. Who notices when I am not there	A	B	C	D
3. Who listens to me when I have something to say.	A	B	C	D

- At my school, there is a teacher or some other adult...

	Not at All True	A Little True	Pretty Much True	Very Much True
4. Who tells me when I do a good job	A	B	C	D
5. Who always wants me to do my best	A	B	C	D
6. Who believes that I will be a success	A	B	C	D

- At school...

	Not at All True	A Little True	Pretty Much True	Very Much True
7. I do interesting activities	A	B	C	D
8. I help decide things like class activities or rules	A	B	C	D
9. I do things that make a difference	A	B	C	D

## HOME ENVIRONMENT SCALE

Please read the following statements carefully & circle how true you feel the statements are about your HOME or the ADULTS WITH WHOM YOU LIVE.

- In my home, there is a parent or some other adult...

	Not at All True	A Little True	Pretty Much True	Very Much True
1. Who is interested in my school work	A	B	C	D
2. Who talks with me about my problems	A	B	C	D
3. Who listens to me when I have something to say.	A	B	C	D

- In my home, there is a parent some other adult...

	Not at All True	A Little True	Pretty Much True	Very Much True
4. Who expects me to follow the rules	A	B	C	D
5. Who believes that I will be a success	A	B	C	D
6. Who always wants me to do my best	A	B	C	D

- At home...

	Not at All True	A Little True	Pretty Much True	Very Much True
7. I do fun things or go to fun places with my parents or other adults	A	B	C	D
8. I do things that make a difference	A	B	C	D
9. I help make decisions with my family	A	B	C	D